Guitar MAGAZINE

JULY 2020
ISSUE 382
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PLUS

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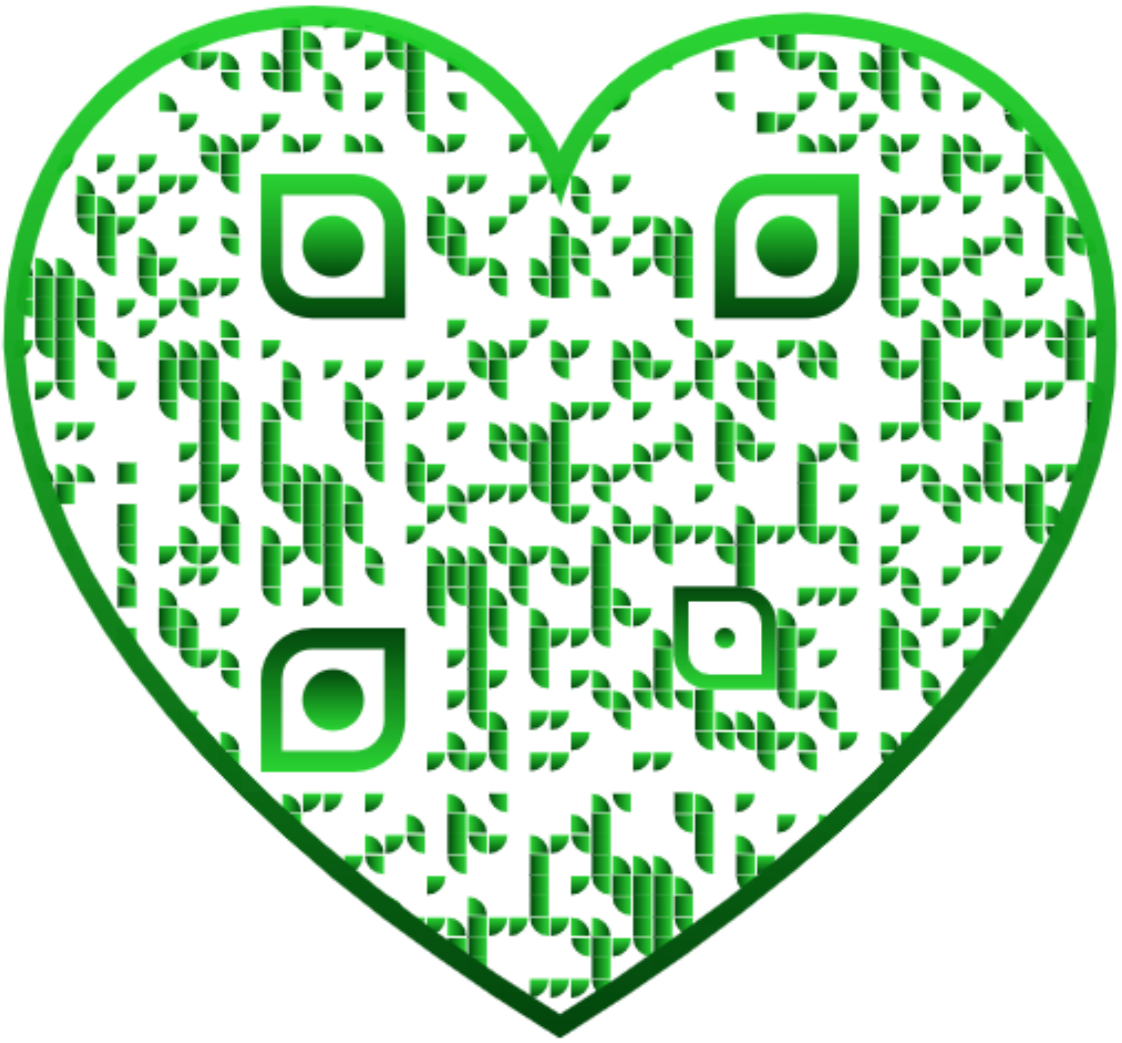

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Ed Sheeran

Sheeran BY Lowden

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EDITOR'S LETTER

SOUND OF PERSEVERANCE

It's been heartwarming over these past few weeks to receive letters and emails from those of you who have used the lockdown in positive and productive ways. Somehow, while juggling myriad challenges such as home-schooling, you've found the time to tackle partscaster builds, complete recording projects, master tricky guitar parts that have long proved elusive, and much more.

I've also witnessed remarkable dedication from the members of the *Guitar.com* team, all of whom have kept the wheels turning despite working entirely from home for months on end and in far-flung corners of the globe. Why? Because we all love guitar – and when energy, ingenuity and an obsession with the subject matter collide, the resulting force is pretty much unstoppable.

Just ask Ray Butts, whose inventions in the 1950s changed the sound of popular music forever. The late trailblazer's innovations can still be heard every day on breathtaking recordings that stop listeners in their tracks – and he *might* even have invented the humbucking pickup for guitar before Seth Lover designed the PAF. Turn to p66 to find out more as we dig deeper into the Ray Butts archive for the second instalment of our Maker's Marks series.

Elsewhere in this month's magazine, we look at new gear from brands such as EarthQuaker Devices and Relish, whose products are enabling artists to change the musical landscape of today. We also catch up with Phoebe Bridgers on the eve of the LA singer-songwriter's extraordinary new album *Punisher*, and find out where it all began for acclaimed boutique luthier Doug Kauer. And, if you're still looking for a DIY project to sink your teeth into over the coming weeks, start heating up your soldering iron and flip to p124 immediately. See you next time.

Chris Vinnicombe
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FRETBUZZ

Your letters and observations on the world of guitar

Join the conversation Email us at editors@guitar.com

STANDBY, ME?

Dear *Guitar Magazine*, your letter in the February issue about amp standby switches reminded me of an incident some years ago, when I was a guitar teacher. I went to the home of a teenager for his lesson. He was late coming home, so his mum showed me into the room where his amp and guitars were so I could wait for him. He'd bought a 100-watt Laney all-valve head and cab several months before, and I noticed that even though he hadn't been home all day, it was on standby. "Oh, he leaves it on standby all the time – our electricity bills are horrendous," said his mum. "What, 24/7?" I replied. She responded in the affirmative.

Baffled, when said student got home, I asked him why he was leaving his amp on all the time. "When I bought it, the lad in the shop told me to leave it on standby when I wasn't using it," he said. "So that's what I do." Clearly, the student either misunderstood or wasn't told that this only applies when you're playing a gig. I soon set him straight and, with any luck, his parents found their son's new hobby to be a bit less demanding on their utilities.

I own a guitar shop these days and, believe me, stories such as that present themselves every week.

TONY BOWLER, VIA EMAIL

PHYSICAL GRAFFITI

First of all, let me say how much I enjoy *Guitar Magazine*, especially the DIY projects and set-up guides. As an inveterate tinkerer, amateur woodworker and very amateur luthier, they're right up my street.

However, something that's been bothering me lately is that I pick up my magazine soon after it drops through the letterbox, looking forward to a great read, and find that it features several articles that I've either already read or could have read via your numerous email messages or by going directly to *Guitar.com*. C'mon, guys, subscribers and buyers of the mag pay good money for it, so it sticks in the craw to see things you've already read or could have read for free. It would be better if you at least waited until a while after publication before the articles appear on the website. Other than that, keep up the good work.

BRIAN WALKER, SCOTLAND

You raise an interesting point, Brian, and it's something we've thought about a lot. We look at it similarly to the way music listening has evolved in recent years: these days, most of us are streaming the vast majority of the music we listen to, but the vinyl boom demonstrates that even in a world where every song ever recorded is available in our pockets, there's still a place for physical products that enable us to escape the glow of a screen.

While you can read some of our articles for free on Guitar.com (and much more besides), we think that the physical act of sitting as you are, right now, reading a print magazine – one that showcases our features and reviews using beautiful design alongside stunning photography – offers a tactile, immersive and rewarding experience that's worth waiting for, or even worth returning to for a second read. We hope you agree.

SECRET AGENT

Dear TGM, I am a new reader, and probably one of your older ones at 72, but I absolutely love receiving the magazine. I first took up the guitar while at school in New Zealand, as it seemed cool. Then, at university, I played in a covers band, The Secrets, which was an interesting experience. The Secrets were quite popular in New Zealand at the time but remained quite anonymous. Our 'manager' had six bands going out and playing under that name, booked as if they were the real band! Nobody ever caught on because nobody knew what they looked like.

Many years later and now living in the UK, I've got back into guitar playing. I recently hired a teacher to learn jazz but that was too hard, so now I'm learning blues variations. I find the technical aspects of some articles in the mag beyond me but I still enjoy reading them. After all these years, I find only now that I want to learn more about things like pickups, bridge positions and what makes one guitar more expensive than the other.

In recent years, I have been fortunate enough to sit in the pit of two London musicals, which were brilliant experiences. I always try to meet the guitarists of shows I attend, and find it interesting to learn of their paths, the instruments they play, and so on. Many of these conversations have been fascinating – I think features on these unknown pro players would be really interesting and illuminating. Keep up the good work.

PETE (CHET) GOODMAN, VIA EMAIL

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ONES TO WATCH

BURSTERS

WORDS CHRIS SCHWARTEN

Seoul five-piece Bursters might have got their break on a homegrown TV talent show but the metalcore band have been making waves beyond their homeland

With the likes of BTS and Exo taking the world by storm, South Korea has made its mark on the global music industry in recent years. But as bands such as Bursters illustrate, there's more to Korean music than K-pop.

The Seoul-based five-piece have flown the tattered flag for hardcore in their country since gaining national exposure in 2014, when they finished in the top six of hugely popular television talent show *Superstar K*. It was the first time that a metal band had done so well among the scores of K-pop acts usually featured on the programme.

With the release of their sophomore LP *Once And For All*, guitarists Junyong Ahn and Gyejin Lee say the band is on a mission to push their genre to its breaking point. Fusing elements of pop, nu-metal, funk and electronica with contemporary hardcore, the record reveals Bursters' unwillingness to be boxed in.

"The album took about three years to make," says Junyong. "Being in the hardcore genre, we wanted to dispel the misconception that you can only do the hard stuff. We're not afraid of the softer stuff. We want to break down the barriers of hardcore music."

Bursters say the new approach happened organically, with Gyejin adding synth parts and programming to the band's songs, inspired by his affinity for Bring Me The Horizon and Linkin Park's Mike Shinoda.

"We can cover a lot more ground sonically now," says Junyong. "We found we could express more because we had this extra element, a new tool for making our music.

Bursters guitarist Junyong Ahn on stage with his PRS

We believe that the time for relying on traditional instruments has passed. It's time to expand and incorporate other elements and blend genres."

Their genre-fluid approach finds Bursters in good company in the modern music industry, where everyone from Billie Eilish to Yungblud are demonstrating that there's a huge appetite for music that carves up the rulebook and smashes sounds and styles together in novel and engaging ways.

This spirit of experimentation is explored in depth on Bursters' latest single and album opener *Smell The Rot*. It's led by synth strings that bleed into Refused-style hardcore verses before bursting into a massive radio-ready chorus, and glitchy and subtle atmospherics find their way into the song's bridge, lending it a sense of space before its final push.

"WITH K-POP ENJOYING SUCH A STRONG PRESENCE, THE QUESTION WE GET ASKED A LOT IS, 'ARE YOU *STILL* DOING ROCK MUSIC?!' BECAUSE IT'S SOMETHING THAT'S VERY MUCH ON THE DECLINE"

"*Smell The Rot* is a song that makes our blood boil, especially when we play it live," says Junyong. "It's everything we do at its peak. It's the band at 100 per cent."

While their hard work has paid off with acclaim from as far afield and Japan and the UK, there's still a sense that Bursters are struggling to find their audience in their homeland – despite the fact that the Korean music scene is in unabashedly rude health.

"We face real difficulties coming up against K-pop," says Junyong. "If the entire music scene was being overlooked, if it was a universal problem for all genres, that would be okay because we'd all be in it together. With K-pop enjoying such a strong presence though, the question we get asked a lot is, 'Are you *still* doing rock music?!' because it's something that's very much on the decline. We hate it when people look down on genres other than K-pop. We've definitely felt that."

With barriers being erected in their homeland, Bursters took the radical step of recording their first songs in English in the hope of bringing their music to a wider audience. It was a decision that brought its own challenges, with the band spending months labouring over vocal takes in a language they don't speak fluently.

But, ultimately, the Seoul act hope this will allow them to make a home for themselves in the global rock scene, rather than remaining mired in the challenged and challenging environment of K-rock.

"The truth is, in Korea, the rock scene is diminishing," says Junyong. "These days, there are fewer chances for rock bands to perform. Even on rock festival bills, there are fewer spots for rock bands. It was a conscious choice to go out there and find the spots where there is still a vibrant scene. We're trying to reach those places."

Bursters are a band on a mission, and do not lack passion for what they do. Asked what the most important thing about Bursters is, the usually reserved Gyejin was quick with his words.

"What's important is that the five of us get to be together and be united," he says. "We're best friends outside of the band. We're basically brothers because we've known each other almost our whole lives. We rehearse all the time, and when we're finished rehearsing, we hang out afterwards. Our lives are so intertwined now. Being in Bursters isn't just a job to us, it's our whole life."

***Once And For All* is available now**

THE PLAYLIST

ALBUM SPOTLIGHT

PIGS PIGS PIGS PIGS PIGS PIGS PIGS VISCERALS

INTERVIEW SAM ROBERTS

We chat to the psych-metal maestros about boutique pedals, compositional tricks, Japanese lead tones, and their heaviest track yet

Viscerals, the third LP from Newcastle outfit Pigs Pigs Pigs Pigs Pigs Pigs Pigs, demonstrates the band's newfound fervour and provides even more porcine intensity than their 2018 breakthrough *King Of Cowards*. Opener *Reducer*, for instance, is vicious in its presentation, powered by roaring krautrock drums and Sabbathian guitars. The northern porkers may not be the metal band that many people expected to be at the vanguard of the genre in 2020, but they are absolutely the band we need right now. Here, guitarist Adam Ian Sykes dissects his five favourite guitar moments on *Viscerals*.

REDUCER

"It's easily the scrappiest song we've written to date. It was birthed more or less fully formed from just the drums and bass, and gave us an excuse for a healthy bit of self-indulgence. It makes strong use of a Fuzz War pedal from Death By Audio. Having bought it not long before tracking the album, I found some Japanese psych-rock lead tones buried in that pedal that I was desperate to use."

WORLD CRUST

"It was time we tried our hands at thrash. As is often the way, what came out was a Cronenbergian mutation of our initial intentions, a sort of pseudo-thrash track. Though the main riff is as simple as it gets – it spends most of its time on the C with a short rundown at the end of each phrase – it was a bit of a deviation from our usual fare. The bridge riff slows it down and offers a breather, which is something we do often. It's a typical cheap Pigs trick."

HALLOWEEN BOLSON

"This track had a few iterations before we found the final arrangement. It all ended up coming together on a 7/4 'chorus' riff that arrived late in the writing process. This riff is one of those that has a knack for falling onto itself in a loop; it's fairly simple but the signature gives it an interesting twist. Just as importantly, it did the job of joining up what were previously two fairly disparate sections: the galloping riff of the first half, and the jilted riff of the outro. Working well within the context of both, it gave the track a focus and a structure, and ultimately a place on the album.

"Initially, the lead parts were a lot more reserved on this track, less hook-based and more meandering. After sitting with it for a while, we decided it needed something more direct, especially with its longer runtime. So, I went back in the studio to vomit up some borderline hair-metal licks that seemed to give the parts more focus."

RUBBERNECKER

"When it comes to guitar, this track is all about the simple rundown melody – four notes from the Bb to the E. With this album, we wanted to have more dynamics, melody and harmony in places from the two guitars. This gave us all three. We could harmonise to the run in the verses, and it could also provide a juxtaposition to the all-in riffing, offering a bigger dynamic and a better sense of weight when the riff does actually land. It also pivots over the bridge, from the lightness in the verses to a dark minor run as the bridge takes the track into a heavier place."

NEW BODY

"*New Body* is probably one of the heaviest tracks we've released to date. It gave us the opportunity to focus more on the guitars throughout the closing three minutes, when the song becomes instrumental. Working from a simple four-note loop on the bass guitar, where the phrasing is the focus, the repetition allowed us to make slow and measured steps in harmony on the rhythm, while the lead pushed towards a more noisy, skronky solo. It takes the mood closer to the edge. It's almost like an ascending Shepard tone, which adds a vital bit of unhinged energy to it."

The new Pigs Pigs Pigs Pigs Pigs Pigs Pigs album *Viscerals* is out now on Rocket Recordings

This month's essential tracks for guitar lovers

FONTAINES DC
A Hero's Death

The Dublin quintet's first single from the sophomore album of the same name boasts roaring guitars that shift between major and minor, as well as quintessential Beach Boys-style backing vocals.

OASIS
Don't Stop...

Unearthed by Noel Gallagher, this is a largely acoustic demo of a song that until recently had only been heard as part of a soundcheck recording from Hong Kong in the early 2000s.

TOM MISCH & YUSSUF DAYES
Festival

Found on Tom Misch's sophomore album, *Festival* features impeccable rhythms underpinning balanced and collected arpeggiated guitar melodies, while short searing lead lines peal in the distance.

FENNE LILY
To Be A Woman Pt.2

Following the wonderful *Hypochondriac*, Dead Oceans' latest signing Fenne Lily has released her second single for the label, which is raw and furious, with ground-shaking guitars and inventive dynamics.

LIANNE LA HAVAS
Can't Fight

The third single to come from her forthcoming album, C*an't Fight* opens with a cool tapping melody before lo-fi drums lay the groundwork for La Havas' effortless vocal.

JOFF ODDIE
To Mr Fahey

This is the title track of Wolf Alice guitarist Joff Oddie's instrumental folk album, the proceeds from which go to the Trussell Trust to help with UK food banks during the COVID-19 crisis.

POTTERY
Hot Heater

Pottery released *Hot Heater* alongside the announcement of their debut album, due in June. Reminiscent of Talking Heads and *Freaky Styley*-era Red Hot Chili Peppers, it's laced with raw and choppy guitars.

SHARON VAN ETTEN & JOSH HOMME
(Whats So Funny 'Bout) Peace, Love & Understanding

For this cover of a song penned by Nick Lowe in 1974, Van Etten and the Queens Of The Stone Age frontman's delectable duet burns slow and bittersweet, with sultry slide guitar atmospherics aplenty.

PERFUME GENIUS
Describe

What began life as a ballad took on a new life when it was introduced to Blake Mills, whose guitar is resplendent throughout. The end result straddles the line between modern country and stoner rock.

KATY J PEARSON
Take Back The Radio

Bristol's Katy J Pearson returns with this belter, whose crisp reverberated guitar is set against her enticing vocal. It also features labelmate Davey Newington of Boy Azooga on drums and backing vocals.

BLAKE MILLS
Never Forever

The opening track from Mills' stellar new album *Mutable Set* begins with washes of ambience before a crescendo leads into beautifully fingerpicked guitar. The 33-year-old Angeleno is a serious talent.

DEEP PURPLE
Man Alive

Loaded with references to the end of days, the lead from Deep Purple's forthcoming LP *Whoosh!* is perfectly tailored to a global crisis, and opens with vocal harmonies and Steve Morse's signature doublestops.

COMPETITION

WIN BEETRONICS FATBEE
WORTH £199

Sporting a new form factor somewhere between Beetronics' traditional oversized pedals and miniature stompboxes, the Fatbee overdrive is part of the boutique company's new Babee range, whose units are designed to sit snugly on your 'board without hogging real estate.

The Fatbee is a JFET overdrive. With the Honey (gain) control at about 10 o'clock, it's capable of a sweet low-gain overdrive that has just enough bite to stop humbuckers getting mushy. Push it towards maximum gain, however, and it gets warm and sticky, and the Flavor (tone) knob responds almost like an amp's presence control, ranging from extra spiky at the top of its range to smooth near the bottom.

Throw Beetronics' typically eccentric design and top-mounted controls into the mix, and you have yourself a high-flying pedal with a sting in its tail.

To enter this competition, head to the link below and answer the following question. Good luck.

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Enter at: guitar.com/competitions

The closing date for this competition is 23:59 BST, 3 July 2020

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David Gilmour's White Penguin sold for $447,000 at Christie's in 2019

RARE BIRD

THE GRETSCH WHITE PENGUIN STORY

This scaled-down sibling of the White Falcon is one of the coolest Gretsch models of all time. Although the Penguin has enjoyed a recent resurgence in a variety of new hues, upon launch it proved almost as flightless as its avian namesake

WORDS TONY BACON
PHOTOGRAPHY ELEANOR JANE

Imagine the meeting at the Gretsch HQ in Brooklyn. The firm's bigwigs, including Fred Gretsch, Jimmie Webster and Duke Kramer, were talking about new models for 1956. The previous year had been a big one for the company: the Chet Atkins 6120 and the White Falcon were launched to considerable acclaim and, along with the hollowbody 6120, Gretsch had introduced a chambered version, the 6121. With that in mind, Jimmie thought it would be a good idea to make a matching 'solidbody' version of the high-end White Falcon. What's more, he had a name for it: the White Penguin. Once the laughter died down, the team began to consider the practicalities.

Gretsch had produced its first solidbody-style guitar just a few years earlier. But while the Duo Jet came on like a solid, with the general look of Gibson's new Les Pauls, it was made differently. Gretsch routed out a mahogany back to provide a sort of sectioned box that could accommodate the electrical bits and hook-up wires. To this, they then added a pressed laminated maple top, which joined the back only where the box wasn't routed, primarily at the sides and around and under the bridge. The pickups were then mounted to the top.

ABOVE This three-pickup Blue Penguin was built for Rival Sons star Scott Holiday by the Gretsch Custom Shop

Gretsch's new-for-1953 'solid' guitar was technically semi-solid. As a result, it was relatively light, which to an extent helped give the guitar its sound. But its look, its catalogue description and its intended place in the market meant that the Duo Jet was in effect Gretsch's first solidbody electric guitar. Duke Kramer told me that "people called it a semi-solid, because we routed out a lot of space in the wood for the electronics but, basically, we considered it a solidbody guitar".

The sparkle-finish Silver Jet and the country-flavoured Round Up both followed in 1954, with the Chet Atkins Solid Body and red-finish Jet Fire Bird coming in '55, all with the same general construction style and base feature sets. Now there was a further model in the works: the White Penguin.

SHAKE A TAIL FEATHER

The Penguin's partner, the lavish White Falcon, had already set a high benchmark for Gretsch's hollowbody electrics. The Falcon was a stunner, and the Gretsch 6134 White Penguin, launched in 1956, followed virtually all the contemporary Falcon's flamboyant trappings.

“THE PENGUIN IS THE GRETSCH CUSTOM SHOP’S MOST POPULAR MODEL. THERE ARE SO MANY WAYS TO DRESS UP A PENGUIN NOW, WITH BINDINGS, COLOURS, WOODS, AND SO ON”

The Penguin’s single-cut body was 13.5 inches wide and finished in a striking white, complete with gold-trim binding. The neck was topped by a large winged headstock, which had gold sparkle decorations borrowed from Gretsch’s established drum department. All the metalwork was gold plated, including the fancy Grover Imperial tuners, Melita bridge, and stylish new tailpiece, soon nicknamed the Cadillac due to its bold V shape. The control layout consisted of four jewel-inset knobs (three volume, one tone) plus a pickup selector. The markers were etched hump-tops, the pickups were single-coil Dynasonics, the gold plastic pickguard featured a little penguin, and the body usually had a banjo-style armrest.

Despite its ornamentations, almost as soon as it was introduced, the Penguin seemed like a wayward creature wandering aimlessly among Gretsch’s more successful models. It was absent from any catalogues I’ve seen, it appeared on only a handful of price lists, and was briefly name-checked in a single brochure.

ABOVE A closer look at David Gilmour's wallet-busting White Penguin, photographed at 2019's auction preview event at Christie's in London

A June '56 list pitched the Penguin at the top of Gretsch's solidbody models at $475, with the $400 Chet 6121 in second place, ahead of the $350 Round Up, $310 Silver Jet, $300 Jet Fire Bird, and $290 Duo Jet. The White Falcon, meanwhile, was listed at a cool $650. That same year, a Les Paul Goldtop listed at $235, a sunburst Strat $274.50.

The few Penguins that Gretsch made mirrored the changes going on elsewhere at Gretsch. In about '58, that meant a shift to humbucking Filter'Trons, thumbnail markers, horizontal headstock logo, Space Control bridge, and a control layout of three volume knobs and a selector each for tone and pickups. In 1961, there was a change to a double-cut style that Gretsch was applying across most of its models. Ed Ball has done the best research into 1950s Gretsches, published in his *Ball's Manual* book, and his guess is that fewer than 50 single-cut Penguins were produced. There must have been even fewer double-cuts.

AND YOUR BIRD CAN SWIM

Since Gretsch's revival in the late-1980s, the company has made various reissues of the Penguin. Stephen Stern at the company's Custom Shop told me that the Penguin is the Shop's most popular model. "I think that's because so few originals were made," he said. "Also, like all Gretsch guitars, there are so many ways to dress up a Penguin now, with bindings, colours, woods, and so on. It all works."

The scarcity of the original Penguins turned them into rare birds indeed. One of the few this writer has seen was owned by the late Scott Chinery, with whom I worked on a book about his collection. "An enigmatic guitar, to say the least," said Scott as we pored over his '56-style Penguin. "The original owner fooled around with it for a few months and then put it under his bed. Forty years later, when he took it out, it had appreciated to $80,000! It's the rarity and the mystique that make it worth so much. I don't know that it's a great guitar as far as playing goes but it certainly has an aura about it. It's exciting to me."

Another famous Penguin I came across was the one owned by David Gilmour, which I encountered when we photographed it for my *Ultimate Guitar Book*. This one had some 1958-style appointments, including Filter'Trons – and an unfortunately damaged pickguard. That didn't stop someone from paying $447,000 for it at David's big Christie's auction last year though. Quite a chunk of change for a $475 guitar that, at the time of its release, almost no-one wanted. G

SHINE IN YOUR OWN LIGHT

BULLDOG

LONDON DRY GIN

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GRETSCH

G6134T-LTD LIMITED EDITION PENGUIN

Guitar EDITOR'S CHOICE

WORDS CHRIS VINNICOMBE

As one of the coolest guitars of NAMM 2020 touches down in the UK, can we stop looking at it long enough to play the damn thing?

KEY FEATURES

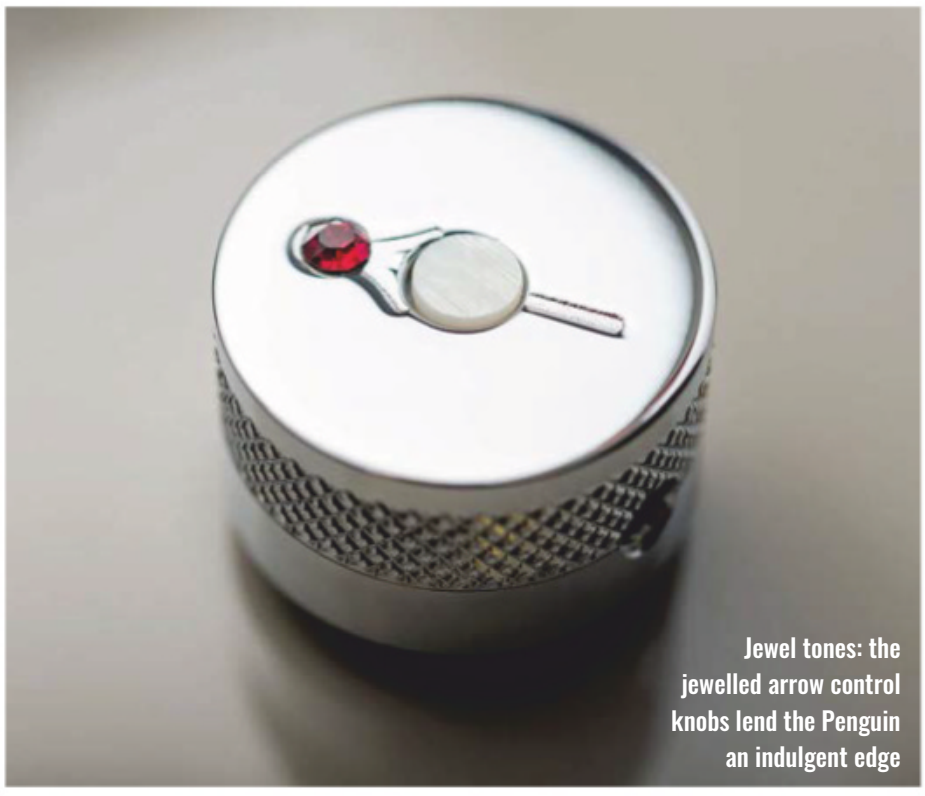
PRICE £3,309 (inc hard case)
DESCRIPTION 6-string electric guitar, made in Japan
BUILD Chambered mahogany body with arched laminated maple top. Set maple neck with 22 medium-jumbo frets, ebony fingerboard with 12-inch radius and mother-of-pearl Neo-Classic thumbnail inlays. Bone nut
HARDWARE Grover Imperial tuners, nickel-plated brass Rocking Bar bridge with pinned ebony base, Bigsby B3C vibrato tailpiece, locking strap buttons
ELECTRONICS 2x TV Jones TV Classic humbucking pickups, 3-way toggle pickup-selector switch, individual pickup volume controls, master volume with treble-bleed circuit, master no-load tone control, paper-in-oil Squeezebox capacitors for tone control and treble bleed
SCALE LENGTH 24.6”/625mm
NECK WIDTH 43.2mm at nut, 52.8mm at 12th fret
NECK DEPTH 21.0mm at first fret, 24.4mm at 12th fret
STRING SPACING 35.1mm at nut, 51.3mm at bridge
WEIGHT 9.9lb/4.5kg
FINISH Two-Tone Smoke Grey and Violet Metallic
CONTACT gretschguitars.com

Gretsch guitars have always had more than enough ice-cool to leave the competition in the dust. But no matter which end of the catalogue you dip into today, you can also expect a level of manufacturing consistency and player-friendliness that’s unprecedented in the company’s 137-year history.

Launched in January 2020, this gorgeous limited-edition model is the latest Gretsch to cherry-pick from the aesthetic highs of the past, combining sparkling Penguin chic with an Anniversary-style two-tone finish previously seen on the Country Club model a decade ago. Some guitars are built for speed – the Gretsch G6134T-LTD is a Cadillac Eldorado.

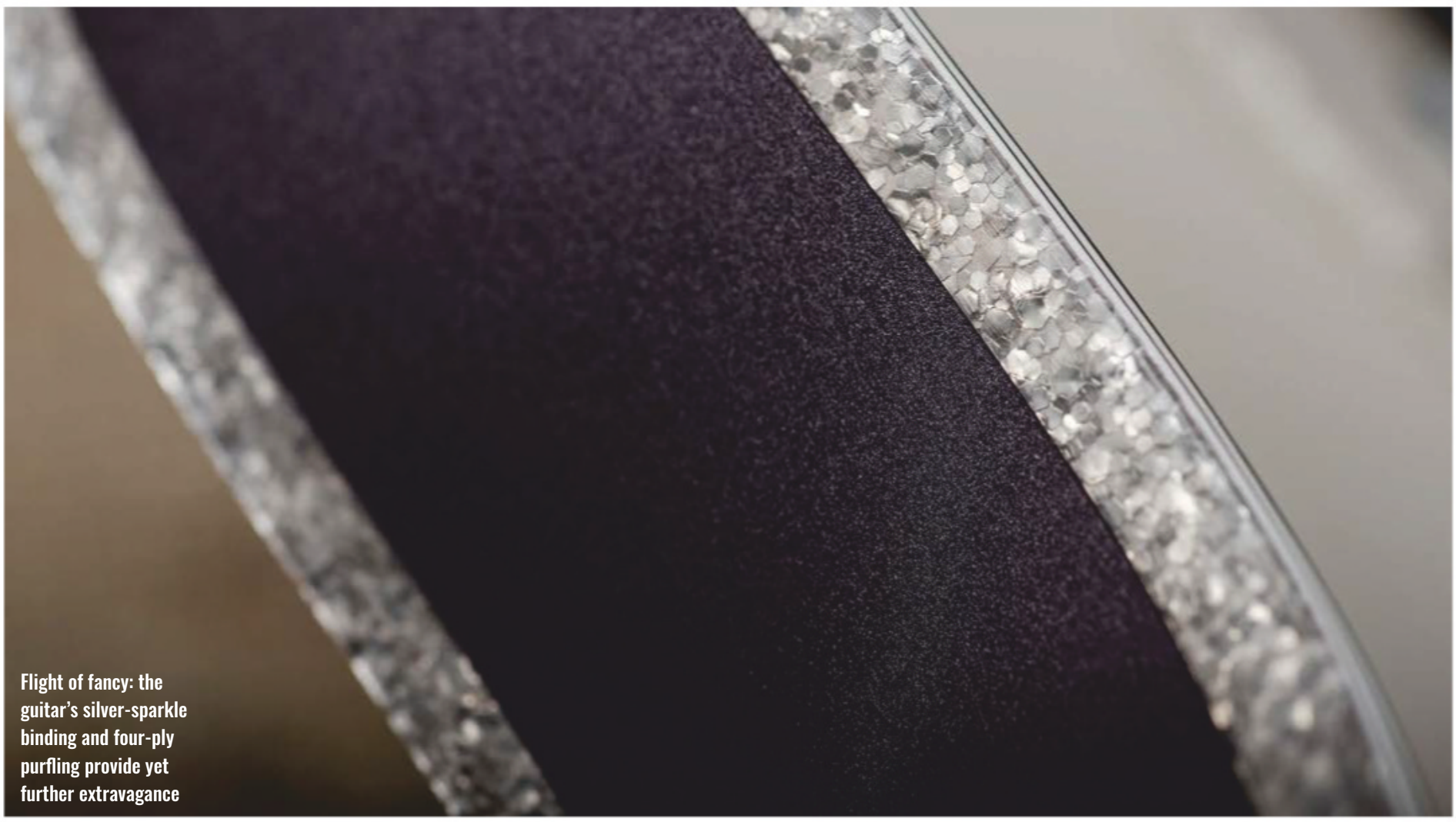
Beneath a devastatingly attractive Smoke Grey and Violet Metallic gloss polyurethane finish is a chassis that, with its chambered mahogany back and laminated maple top, is very much a member of the Jet family (although the set neck is maple rather than the usual mahogany). Among the Penguin’s lashings of bling, you’ll find silver-sparkle binding with four-ply white and black purfling, plus jewelled arrow knobs and a banjo-style armrest.

Then there’s that oversized headstock, with its winged logo and Grover Imperial tuners – it may be Violet Metallic but this is not for violets of the shrinking variety. That said, the nickel hardware is a much more tasteful choice than the Penguin’s traditional gold and we particularly like the understated ghosted Gretsch logo,



Jewel tones: the jewelled arrow control knobs lend the Penguin an indulgent edge

Put the squeeze on: the Penguin boasts Gretsch's paper-in-oil Squeezebox capacitors



Flight of fancy: the guitar's silver-sparkle binding and four-ply purfling provide yet further extravagance

which appears to have been cut into the Plexiglas scratchplate from the rear before the metallic paint was applied. True, this Penguin is a heavy old beast – more emperor than Humboldt, if you will – but it's difficult not to feel like a million dollars with it hanging around your neck, and it balances superbly on a strap.

Upon close inspection, the Terada factory's finishing isn't flawless but the execution is of a very high standard, and several magnitudes cleaner and sharper than it was in 1950s Brooklyn. Although this guitar doesn't come with one of the labour-saving String-Thru Bigsby tailpieces found on Gretsch Players Edition models, its combo of B3C and nickel-plated brass Rocking Bar bridge is one of the smoothest and most expressive in all of Whammyville.

In addition, the Penguin's pinned ebony base ensures that a heavy right hand won't send the bridge sliding across the top's graceful arch while you're mid-performance.

IN USE

We've spent innumerable hours engaged in remote recording sessions recently, and our G6137TCB Center-Block Panther has lived up to the final three letters of its model designation by taking care of business in impressive fashion. As you'll discover in the Filter'Tron shootout that begins on p102, the Panther's High Sensitive pickups may not be the most vintage-authentic units out there but they have a satisfying raunch and perform well as part of a loud band mix.

The move from our guitar menagerie's Panther to its Penguin is interesting. The first thing you notice is the loss of lower-mid punch, the Penguin's TV Classics having less of the aggression and immediacy that makes the Panther such a fabulous rock machine. The Penguin also offers a slightly shorter decay in high registers, but this has more to do with construction than electronics.

That said, it's not long before the Penguin's charms reveal themselves. Instead of the Panther's in-your-face snarl, you get a less congested midrange, greater articulation and a PAF-like treble extension that provides an additional harmonic sheen. Much of this is down to the pickups but it's likely that the Penguin's maple neck, ebony 'board, and no-load tone control – which is effectively removed from the signal path when running wide open – are making their presence felt in the trebles too.

Play it cool: the bound fingerboard and rounded fret ends provide a comfortable ride

TV licence: the TV Classic pickups provide vintage-style Gretsch tone in spades

Shake a tail feather: this Penguin wears a Bigsby B3C tailpiece and its nickel-plated brass bridge has a pinned ebony base

In all three positions of the pickup selector switch, the Penguin feels closer to a vintage Gretsch than the Panther does. As ever, the individual volume controls allow for some interesting blends in the middle position – roll back the neck volume a couple of notches, dial in some spring reverb and pick hard near the bridge to be transported to the early 1960s, or swap reverb for slapback echo and wind back the clock even further.

Rockabilly and vintage pop are typically well catered for, but with the bridge pickup at full throttle, you'll find the classic crunch of Messrs Townshend and Young, and even the stinging attack of Jack White. In the neck position, modern pedal junkies will appreciate the clarity offered by the Penguin in conjunction with potentially swampy delay and reverb ambience.

The master volume's treble-bleed circuit is also exceptionally well voiced – cleaning up a raging tweed amp with the master produces some very pretty and alluring textures indeed, without ever sounding thin.

Shred pyrotechnics aside, whatever style you seek to wring out of it, the Penguin provides a smooth ride. There's a seamless feel where the rounded fret ends transition into the binding, and a nicely tapered neck profile that disappears in the hand. The armrest looks smart but be warned that you might find yourself catching your sleeve or bare forearm on its front-end lip. That said, if this guitar appeals, we think you'll agree that it's worth the risk.

There are undoubtedly more affordable ways to get an eye-popping Gretsch experience, and some of those make further concessions to modernity in terms of ergonomics and hardware – not least the Red Sparkle G6129T Players Edition Jet FT (£2,049) we reviewed in issue 381. However, if you want an instrument that offers the unadulterated decadence of business class alongside hauntingly familiar tones from your record collection, this bird is the only way to fly.

9/10 **Vintage tones in abundance from one of the most beautiful Gretsch guitars available today**

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TV Jones Spectra Sonic Supreme **£2,295**
Gibson Chris Cornell ES-335 Tribute **£3,499**

PHOEBE BRIDGERS

WORDS JOSH GARDNER **PORTRAITS** FRANK OCKENFELS

Phoebe Bridgers' 2017 debut album *Stranger In The Alps* signalled the arrival of a remarkable musical talent. In the years since, a steady stream of acclaimed collaborations has seen anticipation of her sophomore effort reach fever pitch and, from the first ringing note of her Danelectro baritone, it's clear that *Punisher* more than meets those expectations, showcasing her evolution while never losing sight of what makes her such a compelling artist. As the world ground to a halt in March, we caught up with the 25-year-old to talk collaborations, clarinets and playing gigs in hazmat suits

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For those of us who practised social isolation before it was part of our everyday lexicon, a global pandemic presents a distinct set of mental hurdles, which Phoebe Bridgers is still trying to get her head around. "It's all right," says the 25-year-old from her LA home. "I like days like this, where I don't have shit to do and can write or whatever. It's just hard to enjoy it when the circumstances are what they are. It's just so confusing. Technically I'm having a nice day but then there's the idea that I couldn't go outside even if I wanted to."

You can't blame Bridgers for enjoying some downtime. Since the release of her debut album *Stranger In The Alps* in late 2017, the Los Angeles native has spent an enormous amount of time on the road, supporting that record and touring with lauded side projects Boygenius (with Julien Baker and Lucy Dacus) and Better Oblivion Community Center (with Conor Oberst). Indeed, if not for the Current Situation, she'd soon be embarking on a massive US tour with The 1975, one that would nicely coincide with the unveiling of her much-anticipated second album *Punisher*. Released on schedule on 19 June, it's a record that showcases her evolution as a songwriter, artist and producer – just don't call it experimental.

"I get questions like, 'How do you feel about your new album being such a radical departure?' and I'm like, 'What are you talking about?!'" says Phoebe, chuckling at some of the *Punisher* feedback she's received so far. "People will be like, 'Clearly, it's a very experimental record,' and I'm like, 'No, I just piled more shit on it!'

"I did go back to the same producers [Tony Berg and Ethan Gruska] and strived to try more shit. But the reason that I went back to those same producers is that I wanted to make something that was at least similar to *Stranger In The Alps*."

FAILING WITH STYLE

The new album definitely feels like Bridgers 2.0, with the artist maintaining her raw lyrical temperament and knack for pop hooks rather than disappearing down the rabbit hole of radical stylistic departure.

"Every time I try to do experiments, I fail," she says. "I love bands like Joyce Manor, Jawbreaker, and Guided By Voices, bands that have weird songs that are pretty repetitive and short. Often, I'll be like, 'I'm gonna try to write a minute-and-a-half song,' and then four minutes later, I'm like, 'Alright, whatever. At least I wrote something!'"

© ELEANOR JANE

"I LIKE TO WRITE WITH MY FRIENDS. IT'S FUN TO BE SURROUNDED BY PEOPLE WHO I CAN JUST BE COMFORTABLE WITH"

But that's not to say that experimentation wasn't the order of the day during *Punisher*'s long gestation, more that it's been a fundamental part of how she Bridgers writes and records her music since she devised *Stranger In The Alps*.

"I think of myself more as a producer than a musician," says Bridgers. "My favourite thing to do is write 15 versions of the same song and then fuck them up in the studio, because if I try to make the song into something interesting just on guitar, I get so wrapped up in it that I give up. I'll be like, 'Oh, whatever – that just sounds like this other thing'.

"I'll never let myself plagiarise or do something that sounds exactly like something else, so I guess I just trust in that process. And for that reason, I take longer than most people to make stuff, because I'll write a song and then six months later, it'll be super-different. *Kyoto* was a fucking ballad! I just like writing stuff and then fucking it up."

Second-album syndrome may be a well-worn trope but the ramped-up expectations that follow immeasurably successful debuts have proved too much for many artists. It's all too easy to fall prey to increased expectations. But such pressure didn't phase Bridgers during the creation of *Punisher*.

"It's something that everyone who writes faces at some point," she says, with a shrug. "You're basically writing for yourself – and then you have an audience. I don't think it's changed me much but it's changed the record. I feel like the experiences catalogued on the first record are those of a teenager or someone in their early-twenties with no job. I don't typically write about other people's experiences. I only really find it in myself to write about my own life. So it's changed in that way, because I'm now writing about my new life."

TOUCHED BY GENIUS

It's hard to imagine how Bridgers has found the time to record and write any music over the past three years given her long-standing commitments to the likes of Lucy Dacus, Julien Baker, Conor Oberst, Matt Berninger, and The 1975 – a full dance card by anyone's standards. Collaboration is clearly something that energises and inspires her and, perhaps more importantly, exposes her to things that aren't necessarily in her comfort zone.

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“THERE’S SOMETHING ABOUT THE KEY OF MY DANELECTRO, IT JUST MANAGES TO MAKE EVERYTHING SOUND DARKER AND LESS AMERICANA. I CAN WRITE FOLK SONGS ON IT THAT SOUND NOTHING LIKE FOLK SONGS”

“I like to write with my friends,” says Bridgers. “I write with Conor all the time. I write with my drummer Marshall. I need people to bounce stuff off. When I collaborate with other people and things aren’t up to me, decisions get made more immediately. When it’s my decision, I’ll be like, ‘Oh, I’ll think about that later’. But when you’re making a record with someone else, you have to figure shit out!

“A lot of the Better Oblivion stuff was recorded live, most of the Boygenius material was recorded live or with light overdubs – it’s a different experience. That changed the way that I think about making records, which is very overdub-based. You get a click track, and a vocal and then turn it into something.”

Of all the enriching collaborations Bridgers has done, however, it’s the Boygenius EP and tour with Baker and Dacus that stands out to her – a special moment that she appreciates even more in retrospect.

“I feel like that was the high point of my life, especially right now,” she says. “I was still excited about playing bigger rooms than I’d played before, and at the end of the night, I would go out on stage with all my friends. Now I’m just chasing the dragon to get back there – I hope to have more experiences like that. It was so fun. I’ve never had an experience that felt more like summer camp. I love that people like it, because it was really important to us.”

The more Bridgers talks about collaboration, the more evident it is that it’s fundamental to how she wants to write and record music, whether it’s her solo material or something with others.

“It’s fun to be surrounded by people who I can just be comfortable with,” she says. “If I have a be-all and end-all opinion about something, it’s *my* music, whereas Conor and I would get into arguments and, if we were collaborating, we’d just work it out. If it’s my own music, I look to other people for help and then ignore it if I don’t like it – and that’s no way to be in a band.”

BETTER TOGETHER

When it came to writing *Punisher*, Bridgers turned to Oberst, her drummer Marshall Vore, and longtime collaborator Christian Lee Hutson (whose latest solo album *Northsiders* she produced). These are her most trusted collaborators, and they allowed her to skip any pretence in the pursuit of making the record she wanted.

“If Marshall has a bad idea, I’m like, ‘Dude, that’s a bad idea,’” she says, with a laugh. “But if I’m writing with someone that I don’t fully trust, I’ll be more like, ‘Oh my god, that’s so great,’ and then ignore everything they said.”

Returning production duo Berg and Gruska were also a key part of Phoebe’s vision, just as they were with *Stranger In The Alps*.

“They’re amazing people for one but the main thing that makes us really good collaborators is that we have different skill sets,” says Bridgers. “Ethan has a deep knowledge of synthesisers and is a keyboard virtuoso but can also edit stuff for hours on end without getting tired. Tony has worked on some legendary records, is a crazy-good guitar player and has a lot of weird and creative ideas, as well as a collection of absurd instruments. It’s cool because I’ll never be like that, so I need others around me to be like that instead.”

Phoebe cites everything from Billie Eilish (“her production is so cool”) to Guided By Voices, Caroline Polachek, Mitski, and Big Thief as influences on *Punisher*. But another key facet that makes it feel resolutely like a Phoebe Bridgers record is the wonderfully esoteric and original contributions of guitarist Harrison Whitford.

ABOVE On stage with “secret weapon” Harrison Whitford in Paris in 2017

OPPOSITE Bridgers’ Danelectro baritone has become a signature sound for the LA native

“IT’S CHAOS. SOMETIMES WE’LL TRACK A WHOLE SONG, THEN RETRACK IT SIX MONTHS LATER BECAUSE, THE FIRST TIME AROUND, WE WERE BASICALLY WRITING IT. LATER, WE DELETE EVERYTHING AND START FROM SCRATCH”

“He’s like a secret weapon,” she says. “Harry and I have been friends since we were 19. He started playing guitar with me and we tried to make terrible music together until we met Tony. Since then, Harry has turned into the most important throughline of my records – the guitar on both sounds like him.

“It’s funny. He used to be a shreddy NAMM guy,” she adds, laughing. “But now he’s one of the only people I feel comfortable leaving alone in the studio because I trust him. He’ll play 15 things and then the 16th thing will be the hook of the song – and then you’ll have to go back and retrack everything.

“When I’m doing a solo thing and when I’m doing Better Oblivion, I just miss Harry’s playing so much, because it’s just a *style*. It’s different to someone who learns parts – which is amazing as well, and I value that on almost every other instrument – but his guitar playing has been something that I have leaned on for my whole career.”

This gives us the impression that a Phoebe Bridgers recording session is far from a ‘get in, play the parts and get out’ scenario, and something altogether more experimental and free.

“Recording is like writing to me,” she says. “For the most part, if I’m not sure what direction I want to take something, my method is: track everything and decide later. It’s chaos. It takes forever. Sometimes we’ll track a whole song and then retrack it six months later because, the first time around, we were basically writing it and deciding what parts we liked. Later, we delete everything and start from scratch.”

As workflows go, it’s not what you’d call efficient, but it’s led to some spectacular results – and in the case of one of the album’s guest performers, results that surprised even Bridgers.

“Blake Mills plays clarinet on *Savior Complex*,” she says. “Blake was like, ‘Hey, I play clarinet,’ and I was like, ‘Please, don’t…’ But he did it – and it’s the best! I also love his guitar playing on *Halloween*, and he was also going to come in and play some random percussion on some stuff and ended up playing drums on *Halloween* too. They’re some of my favourite drums on the record, and I was pretty set on not having drums on that song. I love moments like that.”

GOING DARKER

It's not much of a stretch to say that, from the moment Bridgers' strapped on a Danelectro baritone during the *Strangers In The Alps* sessions and quickly fell in love with it, she has single-handedly made baritone guitars cool again, particularly in the alternative sphere.

Given that the distinctive instrument has become such a sonic hallmark of her various projects since, it's no surprise that the Dano has replaced a battered old nylon-string as Phoebe's first-choice writing implement. "I have it plugged in at home," she says.

"I don't even use a pedalboard with it, because it's kind of hard on pedals. I just plug it into my amp and write. There's something about the key of it, it just manages to make everything sound darker and less Americana. I can write folk songs on it that sound nothing like folk songs. If I'm covering a song and want it to sound like my version, all I have to do is plug in a baritone.

"For want of a better term, it just feels more like tape to me. It feels like you're listening to something that's been run off a tape rather than an output at a studio. It feels raw, almost to the point that it's wrong. But I just love how dark it sounds.

Given that Bridgers' 2015 debut EP *Killer* features just her voice and an acoustic guitar, it's striking to note how little acoustic there is on *Punisher*, with its only prominent appearance occurring on penultimate track *Graceland Too*. Has she fallen out of love with flat-tops?

"Hilariously, I actually feel the opposite," she says, with a laugh. "I'm always like, 'Damn, I should just play acoustic'. *Graceland Too* was one of the last songs I recorded, and it was me being like, 'Goddammit, I just love acoustic guitar so much'. I get so excited in the studio. But towards the end of the record, I just wanted some regular fucking acoustic guitar! Then we were halfway through the song and we were like, 'What if we plugged it into the iPad?!' I can't just keep things simple.

"I always want to be able to make something different and to feel challenged. I'm trying and failing to learn piano right now, and anytime I even learn a new chord, it'll spawn five songs in me. I'm just trying to do more shit like that. Maybe the next record will be all acoustic, and maybe the record after that will have no acoustic. I love experimenting, which is weird because I'm terrified of change!"

PRESSING ONWARDS

At the moment, the music press feels like an endless parade of cancelled tours and deferred albums, and it's having an impact on artists just as much as fans. Bridgers should be gearing up for her huge US arena tour with The 1975 but, like the rest of us, she's instead trying to make the best of the little she's been left with.

"I had so many plans that are just gone," she says, forlornly. "What's so terrifying and exciting right now is that anything could change. If you told me that, a year from now, I'll start a completely different band and play underground punk shows to people in hazmat suits, I'd believe you. If you told me that music festivals will exist again and I'll be playing them, I would also be stoked. I feel pretty open."

One thing she can be sure about, however, is *Punisher*'s release date. At a time when so many artists are putting new releases on hold until they are able to tour them, Phoebe's take on the issue is honest and affirming.

"I was going back and forth about it," she says. "I feel like I should just press on because that was the plan. I just want to keep myself sane, keep making shit. Because, you know, if for some reason touring it isn't realistic, what will my life turn into? I'll still want to make records. I'm just trying to keep a level head. I want to be the artist that I want to see in the world – and I want to put the album out because I want people to still get their music out there." G

Punisher is out 19 June on Dead Oceans

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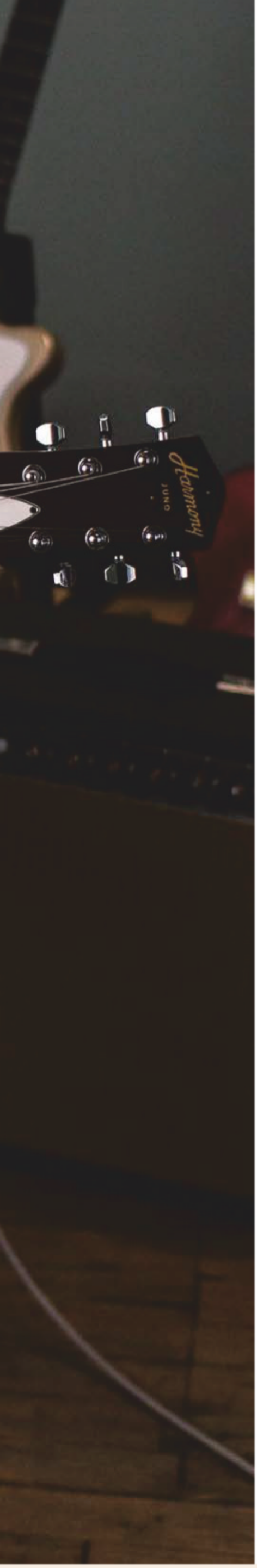

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COASTAL PATH

For his sixth studio album as The White Buffalo, Jake Smith focused on feel and mood, letting his "primitive" playing and distinctive baritone voice do the work. But first he had to get hammered with Shooter Jennings

WORDS HUW BAINES

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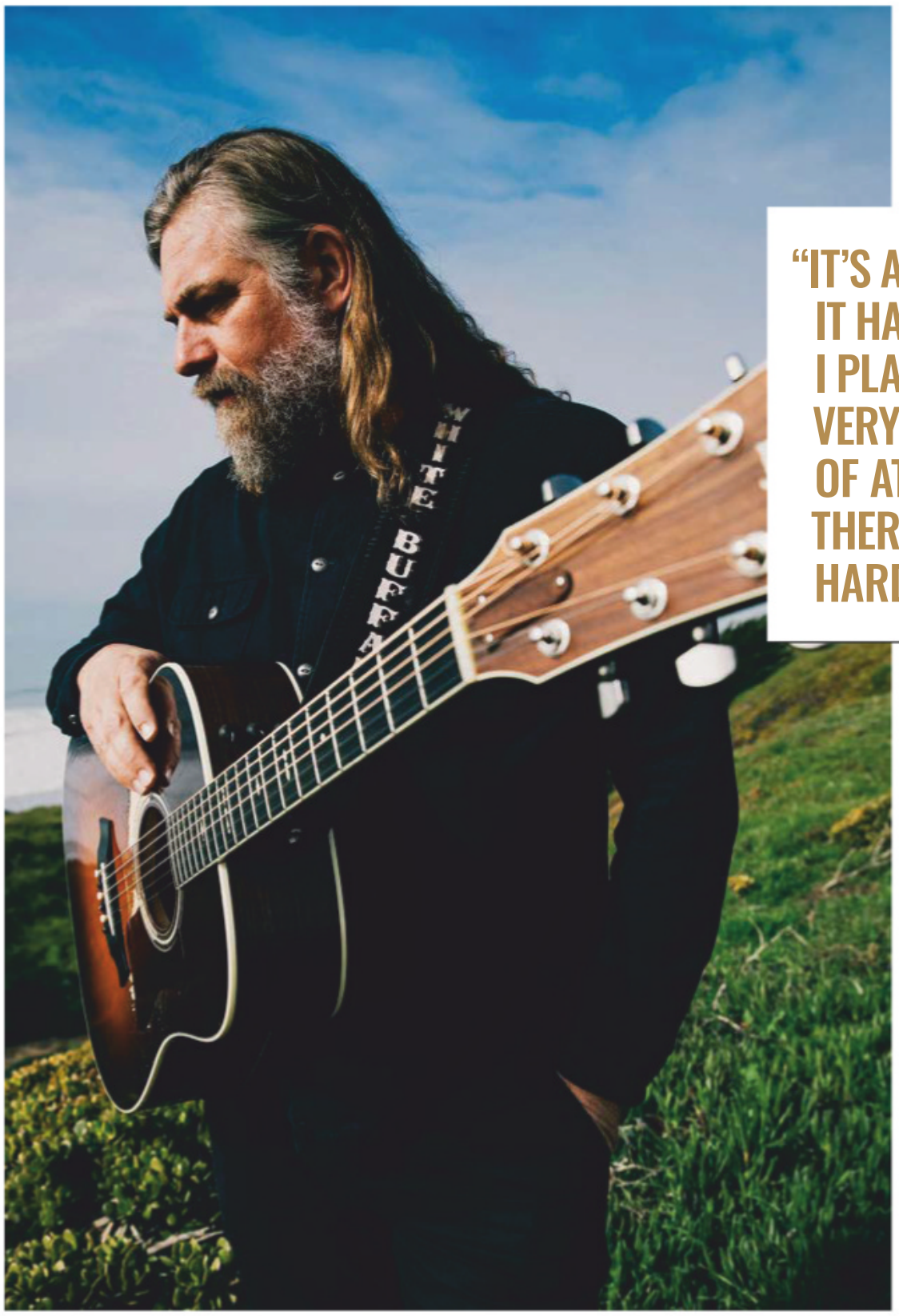

"IT'S A DREADNOUGHT, Y'KNOW? IT HAS ALL THE TONES THAT I NEED. I PLAY WITH A VERY PRIMITIVE AND VERY AGGRESSIVE STYLE. I'M KIND OF ATTACKING IT. I'M ALL RIGHT HAND. THERE'S NO FLASH – PLAY FUCKIN' HARD OR DON'T PLAY AT ALL"

Jake Smith keeps things honest. His music is rough-hewn and almost totally unvarnished, and with *On The Widow's Walk*, his latest LP as The White Buffalo, he wants to do what he's always done with his records: hit you where it hurts. "If you're a songwriter," he says on the line from Los Angeles, "you should be in the emotion business."

Produced by Shooter Jennings, solo artist and the son of country stars Waylon Jennings and Jessi Colter, *On The Widow's Walk* situates Smith's detail-oriented Americana songs and earthy baritone voice amid stripped-back rustic tones and expressive but restrained playing. "Shooter's just a feel guy, you know?" says Smith of the record's easy chemistry.

Jennings roped Smith and his longtime bandmates drummer Matt Lynott and bassist Christopher Hoffee – who also played all of the LP's electric guitars – into recording largely live, with minimal overdubs and a collaborative spirit. The approach was almost completely new to them but it clicked immediately.

"That's where I feel we shine, in that live setting," says Smith. "We're not a flashy band. We're dynamic. To have that space and those highs and lows, and to make those as real as possible, was refreshing. I don't know why we haven't always recorded like that."

Before they could get into the studio together though, Smith and Jennings first had to bond. Their respective managements were involved at some point, Smith assumes, but their initial meeting came in a bar. "We didn't talk about working with each other or any of that, we just shot the shit and talked about life and music and whatever," says Smith. "We just got drunk."

After shooting the shit with Shooter, the following meeting came at the producer's home. "The next time we met, I went over to his house with the intention of writing some songs, or letting him help me flesh some things out," says Smith. "I didn't really have shit going in. I woke up the night before and had this kind of loose idea so I sang it into my phone, just a lyric and a melody. I wasn't confident about what I had, and was nervous about bringing it to someone I respected. But I sang him my idea, we worked it out on the piano and within a matter of minutes it was totally realised."

CORNER MAN

Smith took that energy and ran with it. While Jennings' influence didn't permeate the album's songwriting, his seasoned observations and the sense of validation he was able to offer proved formative. "In turn, I went on a songwriting bender," says Smith. "I get manic with my writing sometimes and it just explodes out. After that, Shooter was my guy. He inspired me, so it was, like, 'Let's see what we can do now in the studio'."

As he wrote, Smith batted around the possibility of making a fully fledged concept album. The title of *On The Widow's Walk* is derived from widow's walks, which are platforms atop coastal homes in North America that were used as lookout points for ships at sea. Eventually, an overarching narrative was jettisoned as more new songs darkened his doorway but the water motif – not to mention the rich vein of sorrow – stuck around.

"I learnt about them from my drummer, who told me the story of women pining for their husbands who were out at sea," says Smith. "I thought that, conceptually, the idea had such a nice palette for a whole narrative: there's drama, there's love, there's romance, there's the violence of the sea, all these terrible and beautiful things.

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© SERGIONE INFUSO • CORBIS VIA GETTY IMAGES

> "THAT'S WHERE I FEEL WE SHINE, IN THAT LIVE SETTING. WE'RE NOT A FLASHY BAND. WE'RE DYNAMIC. TO HAVE THAT SPACE AND THOSE HIGHS AND LOWS, AND TO MAKE THOSE AS REAL AS POSSIBLE, WAS REFRESHING. I DON'T KNOW WHY WE HAVEN'T ALWAYS RECORDED LIKE THAT"

"I started writing under that construct but other songs were coming in and out, and I thought it was a little confining. But a lot of water or ocean themes, natural themes, started seeping into some of the other writing. There's kind of a melancholy within the album, a longing."

In tandem with Shooter Jennings, whose wonderfully dexterous piano lines crop up across the record, Smith attempted to bring some of those conceptual elements to life once he got to the studio, through the treatment of the guitars and vocals. "The water theme came in early and I talked to Shooter a lot about it," says Smith. "We did some stuff through a Leslie, which is normally a keyboard amp, to keep those swirling, moving sonics."

Throughout, Smith stuck to his trusty Taylor acoustic for the guitar work. "It has all the tones that I need," he says. "It's a dreadnought, y'know? People say Taylors are a little bright, a little thin, but I play with a very primitive and very aggressive style. I'm kind of attacking it. I'm mostly all right hand. There's no flash – play fuckin' hard or don't play at all. That guitar really suits me."

OUTSIDE VOICE

Once the band are able to reconvene and set out on tour, Smith may introduce some new gear, having considered how best to recreate the sounds that populate *On The Widow's Walk*, where spidery, melodic lead lines bounce off rugged acoustic passages. "I've been messing with some pedals and a small amp that can give more of a distorted, overdriven tone," he says. "I'm trying to give it a different sonic thing live."

Many people have been introduced to The White Buffalo's music thanks to its popularity with television music supervisors, with Smith's songs having cropped up in *Sons Of Anarchy*, *Californication* and *This Is Us*. *On The Widow's Walk* too is packed with memorable moments that conjure the sort of vivid emotions that might one day translate into small-screen gold. But if that happens, then it happens – Smith's not about forcing things.

"I've just been lucky," he says of his sideline in TV. "That's the biggest way I've grown my fanbase. But it's not something I'm conscious of. It's not something I want to chase. My goal is always just hitting people in the heart, creating some emotion so that people can attach it to their lives."

On The Widow's Walk is out now on Snakefarm Records

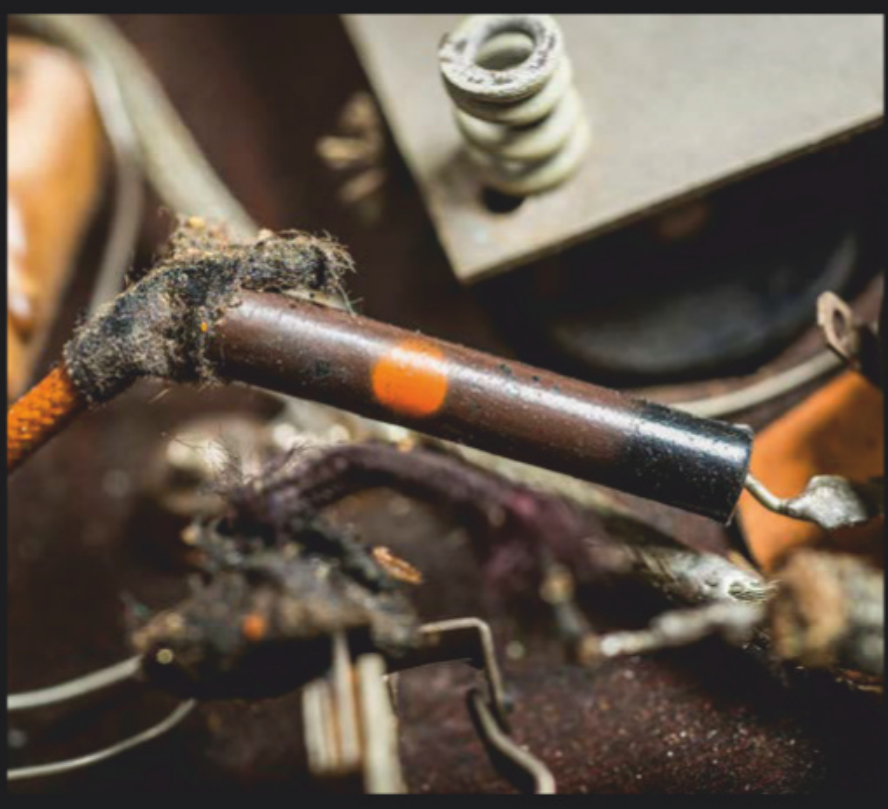
THE MONEY SHOT

1936 GIBSON EH-150 LAP STEEL

The EH-150 lap steel was introduced in January 1936, superseding Gibson's aluminium-bodied E-150 but retaining its Charlie Christian pickup with bound blade and unbound outer edge. The owner of this example is Rob Toma, a client and lifestyle management specialist in the entertainment industry.

"I acquired this two years ago from a private dealer," says Rob. "It was simply by chance, as I thought it looked cool. I loved the vintage aesthetic, and that it was almost entirely original aside from the knobs, which were probably added in the 1940s. Due to the heavy duties imposed on US instruments at the time, it was most likely brought over by a player who came to Europe and remained here."

Though the instrument has clearly been well used, it's a fascinating period piece with attractive maple figuring. By 1937, the EH-150 featured a four-piece diamond peghead inlay and both control knobs were relocated to the treble side, so Rob's model certainly left 225 Parsons Street, Kalamazoo before Franklin D Roosevelt's second presidential inauguration. More than 80 years on, we bet it has a few stories to tell. G



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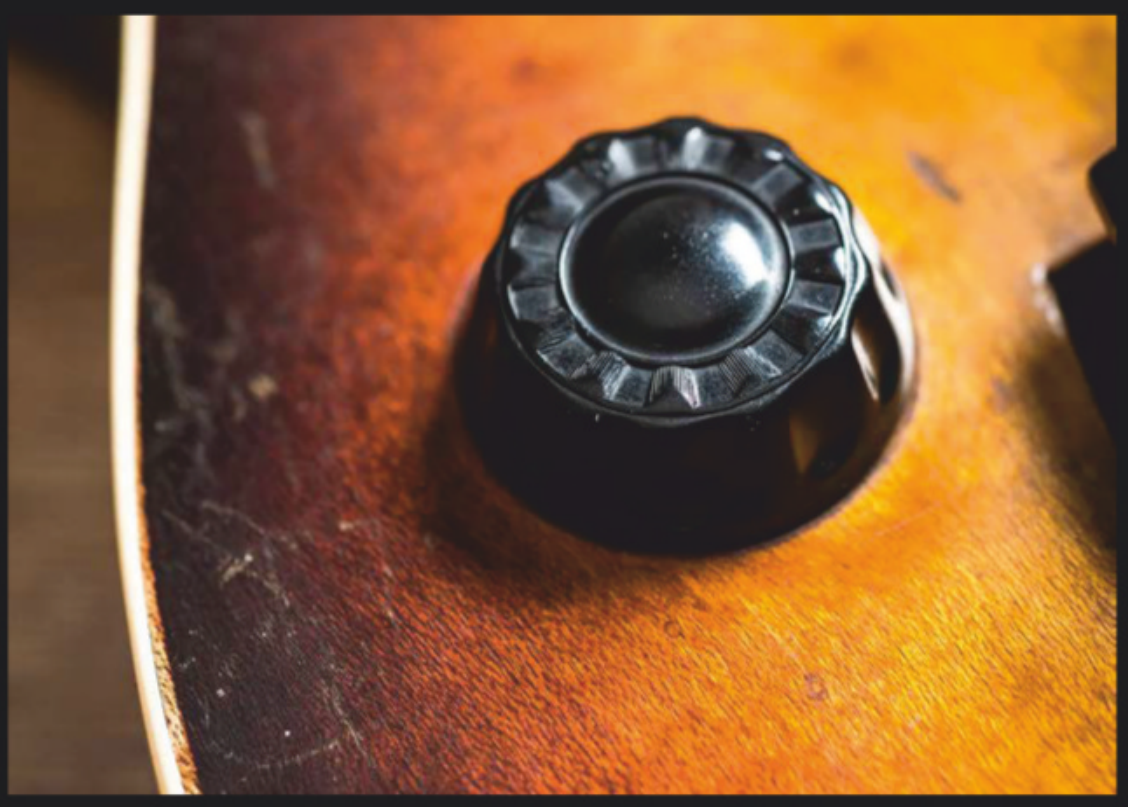


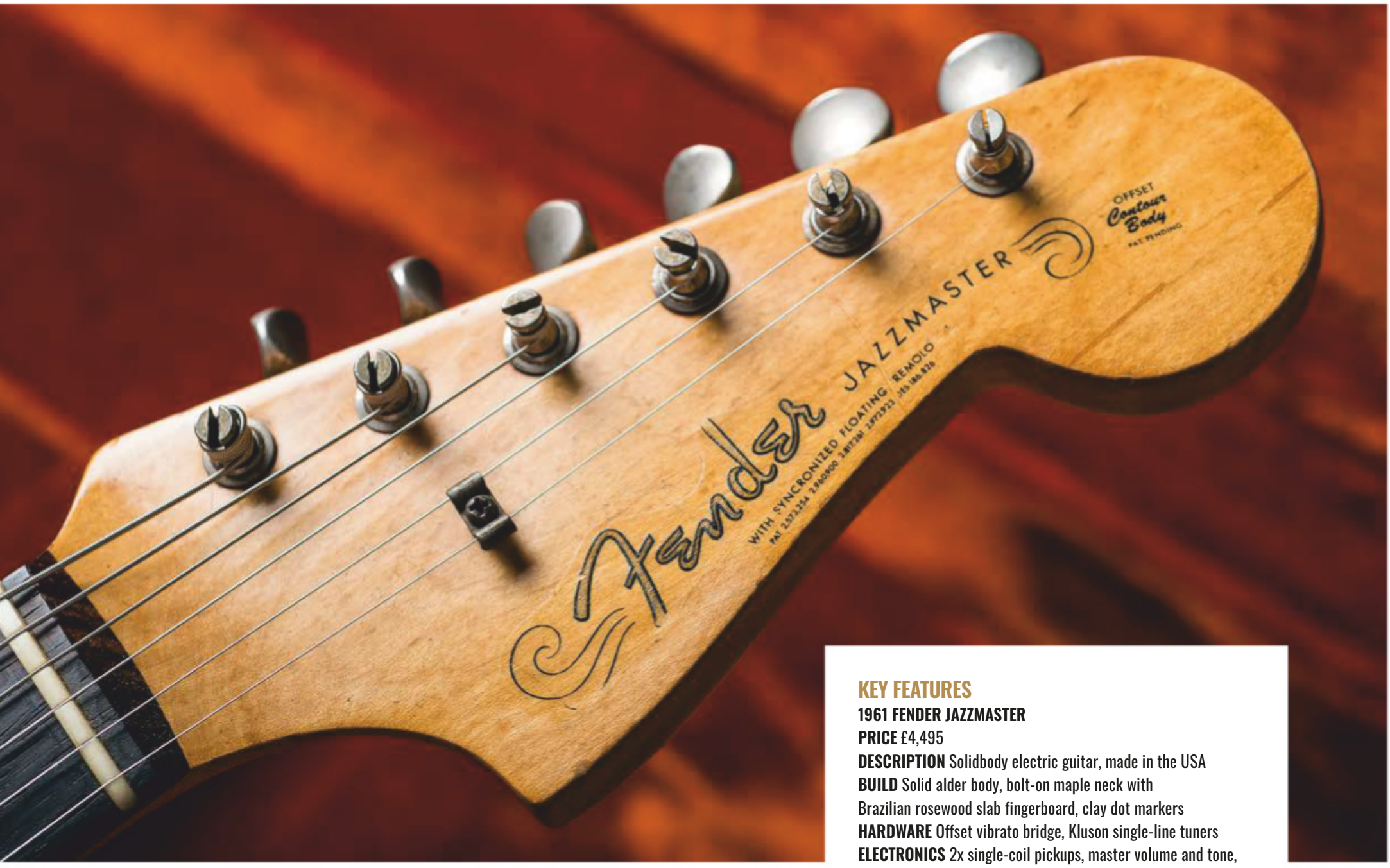
VINTAGE BENCH TEST

BATTLE OF

WORDS HUW PRICE
PHOTOGRAPHY ELEANOR JANE

THE OFFSETS

Fender's Jaguar and Jazzmaster might look similar but, when we put this pair of vintage custom-colour offsets through their paces, they prove to be very different animals



KEY FEATURES

1961 FENDER JAZZMASTER
PRICE £4,495
DESCRIPTION Solidbody electric guitar, made in the USA
BUILD Solid alder body, bolt-on maple neck with Brazilian rosewood slab fingerboard, clay dot markers
HARDWARE Offset vibrato bridge, Kluson single-line tuners
ELECTRONICS 2x single-coil pickups, master volume and tone, 3-way pickup-selector switch, independent rhythm circuit with volume and tone
SCALE LENGTH 648mm/25.5”
NECK WIDTH 41.7mm at nut, 51.2mm at 12th fret
NECK DEPTH 19.9mm at first fret, 24.3mm at 12th fret
STRING SPACING 33.6mm at nut, 56.5mm at bridge
WEIGHT 3.79kg/8.35lb
FINISH Olympic White (refinish)
CONTACT atbguitars.com

Though they share a vibrato system, rhythm circuit and offset-waist body shape, when you consider their pickups, scale lengths and controls, the Jazzmaster and Jaguar are arguably every bit as different as a Tele and a Strat.

As with Leo’s dynamic duo of the early-1950s, there was a four-year gap between the introduction of the Jazzmaster as Fender’s flagship model in 1958 and the Jaguar assuming the mantle in 1962. Both offsets are proof of Leo Fender’s growing confidence as an instrument designer, and provide insights into his company’s strategy at the end of its first decade. To see what this means for the player, we’re pitting a 1961 Jazzmaster and a 1966 Jaguar head to head.

WHITE LINES

Olympic White is an iconic Jazzmaster finish but there’s no certainty that our example looked like this when it left the factory in 1961. The finish is convincing enough to have deceived both the previous owner and the dealer it was sold to but the current custodians at ATB Guitars took a more careful look and found evidence of grey primer and brown wood stain in the neck cavity, confirming this as a respray.

It was evidently refinished by a professional, and was done so long ago that it has the genuine appearance of age without any of the usual signifiers of a modern relic job. ATB’s theory is that it was refinished in an automotive body shop – potentially as long ago as the 1970s. It certainly looks like the correct white acrylic oversprayed with nitrocellulose.

The nitro has yellowed over the years, giving it an authentic early 1960s look, and while the yellowed areas fluoresce under black light, the whites don’t. The original tortoiseshell guard has a crack near the jack socket, shows signs of shrinkage, and there is some warping, but none of those things detract from either its appearance or value.

This is one of those vintage guitars that has clearly been well played but has no negative playability issues. Most of the finish has worn off the back of the neck, leaving that deliciously smooth vintage feel that’s so hard to replicate. The nitro on the front of the headstock appears thick and a bit uneven, leading us to suspect the original decal was oversprayed.

The Jazzmaster’s dark Brazilian rosewood fretboard is in superb condition, with no gouges or divots, and the frets have years of life left. When this guitar was refretted, somebody was perhaps a little overzealous when cleaning out the slots, and most of the slot ends have been over-sawn into the maple. It’s common to see this on veneer ’boards, especially when the fingerboard has been sanded, but far rarer when it’s a slab ’board like this one.

NORMAL
VIBRATO
Pro Amp
NORMAL
VOLUME
TREBLE
BASS
BRIGHT
VOLUME
TREBLE
SPEED
INTENSITY
Tremolux Amp
FENDER ELECT. INST. CO.
Fender
Fender

Fender
WITH SYNCRONIZED
PAT. 2,573,254 2,960,900

The original single-line Kluson tuners feel smooth and accurate, and the hardware is all in very serviceable condition. It appears correct under the hood too, with the original wiring and shielding intact and only a handful of solder joints disturbed.

GOLDEN STRUMMER

Several changes were made to the Jaguar over its first four years of production, and this 1966 example has pearl rather than clay fingerboard dots, as well as neck binding and an F-branded neckplate. Jaguars were among the first Fenders to sport F-stamped tuners, while block inlays would replace the dots found here by the end of the year. Though few would argue that the Schaller-made tuners were an improvement on the Klusons that Fender used from the beginning, this guitar's F-stamps are smooth and stable.

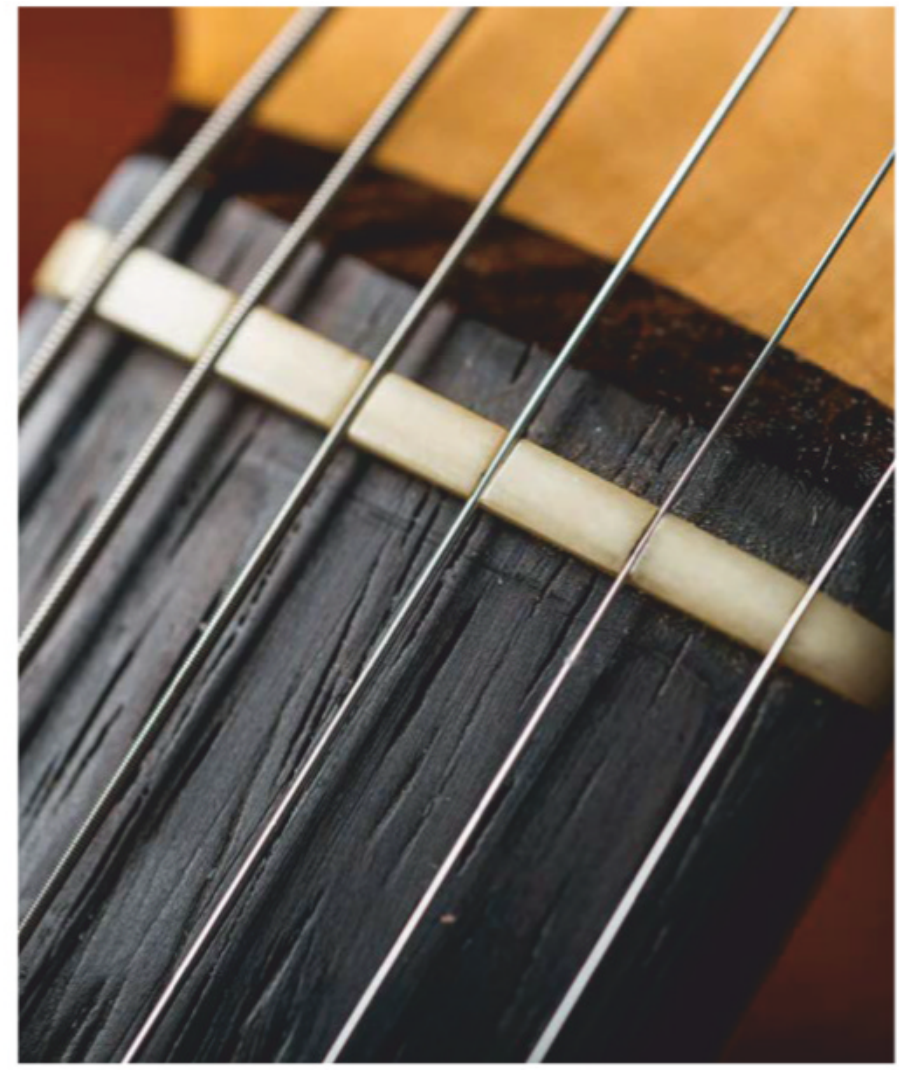
For a guitar of its age, this Jaguar is in impressive condition and doesn't seem to have led a hard life. It's not mint, as a sizeable dent near the rhythm circuit controls and three deep cuts in the fingerboard binding will attest, but other than that we're looking at minor dings and dents. There's no playwear on the neck and the original frets are still present. The CBS-era scratchplate is still bright white.

The feature that sets this guitar apart – and elevates its price significantly – is the Firemist Gold finish and matching headstock. Fender introduced this classy hue in 1965, and it was actually a Lucite acrylic made by Dupont for Cadillac. The front of the headstock is more yellow than the body, and it's possible that Fender sprayed more top coats of nitrocellulose to ensure that the decals would adhere properly, but both headstock and body look identical under black light.

None of the solder joints or wiring appear to have been touched, and all the hardware appears to be original. The bridge mute is present but the foam rubber has dried out and shrunk so much that it has no effect whatsoever. This probably won't be a deal-breaker, even for Jaguar fanatics, but functioning mutes can produce some mightily cool sounds, especially when fed into spring reverb.

IN USE

For such superficially similar guitars, it's remarkable how different these instruments feel to play. The contrasting scale lengths are a big part of that but there's something about the positioning and spacing of the components that makes everything line up a little differently.



FACING PAGE The 1966 Jaguar sports a chic Firemist Gold finish. Introduced by Fender only a year earlier, it was a Lucite acrylic made by Dupont for Cadillac

In a sitting position, the picking hand naturally ends up falling between the pickups of the Jaguar but closer to the bridge pickup when playing the Jazzmaster. For Strat and Tele players, the Jaguar may feel more familiar, despite its shorter neck. With the Jazzmaster, initially at least, it's easy to end up at the seventh fret when aiming for the fifth, though it doesn't take long to get adjusted. There's no comparable familiarisation period required with the Jaguar.

There are contrasting feels to the neck profiles too. The 1961 Jazzmaster has an almost textbook example of an early-1960s Fender neck. It's rounded and quite slim at the headstock end yet still somehow conforms to the palm like a sublime 1950s Gibson. It remains fairly slender up to the seventh fret, where it begins its rapid transition across the next three frets into a fully rounded profile.

The Jaguar's neck diverges from the Jazzmaster's in virtually every regard. It's all about consistency with the Jaguar; the depth remains practically identical from headstock to heel, and the feel is more of a D than a rounded C. It also feels both thicker and thinner than the Jazzmaster neck in the low and high positions, respectively.

Fender JAGUAR
Super Amp
Pro Amp
Deluxe Reverb-Amp
FENDER MUSICAL INSTRUMENTS
NORMAL
VOLUME
TREBLE
BASS
SPEED
INTENSITY
PRESENCE

KEY FEATURES

1966 FENDER JAGUAR
PRICE £7,995
DESCRIPTION Solidbody electric guitar, made in the USA
BUILD Solid alder body, bolt-on maple neck with bound rosewood veneer fingerboard, pearl dot markers
HARDWARE Offset vibrato bridge, F-stamped tuners
ELECTRONICS 2x single-coil pickups, master volume and tone, individual pickup-selector switches, mid/bass cut 'strangle' switch, independent switchable rhythm circuit with volume and tone
SCALE LENGTH 609 mm/24"
NECK WIDTH 41.7mm at nut, 51.4mm at 12th fret
NECK DEPTH 22.6mm at first fret, 22.2mm at 12th fret
STRING SPACING 35mm at nut, 54.9mm at bridge
WEIGHT 3.7kg/8.1lb
FINISH Firemist Gold
CONTACT atbguitars.com

There's a distinction to the frets too, with the Jazzmaster having been refretted with taller and wider wire. A decent job was made of it, with no damage to the playing surface, though you can feel that the 'board edges have a bit more rollover as a result of the bevelling.

In contrast, the Jaguar's factory-fitted frets are low and flat, and about 0.2mm narrower. The binding nibs have survived (just about) and somebody has made a valiant effort to file a crown into the frets and bring them to a high polish.

Although they look different, the controls on both guitars are more or less the same. Individual pickup switches on the Jaguar replace the Jazzmaster's more conventional three-way toggle pickup selector, while both have a rhythm circuit with low-profile volume and tone controls and a small activation switch.

The main point of variation is the Jaguar's 'strangle' switch on the bridge end of the small chrome plate.

The Jazzmaster's unplugged tone is much in line with our expectations of an early 1960s pre-CBS Fender. It's warm and balanced, and it has reasonable sustain and ample bass depth. In contrast, the Jaguar is naturally brighter and has more chime, as well as a quicker and more percussive attack but more rapid decay and less bass.

Through our Rift Princeton Reverb-style amp, the Jazzmaster delivers a wide range of warm, bold and twangy tones. It's a big sound but it's not overblown, and there's something about the attack and decay characteristics that's reminiscent of the wooden bridges on archtops.

Following on from the Telecaster and Strat, the Jazzmaster was essentially the next rung on Fender's evolutionary ladder, so it's interesting to compare its pickups with those of its predecessors. Fender seems to have been shooting for fidelity and balance, and the neck/bridge tonal contrast is significantly less pronounced than on Teles and Strats.

The Jazzmaster bridge isn't naturally disposed to bite and quack, and the neck likely got closer than ever to the jazz flavours Leo intended when he designed it. In real-world playing situations, this means you're less likely to get the urge to mess with your amp settings every time you switch pickups.

Continuing this evolutionary theme, the Jaguar seems like an attempt to retain that balance between the neck and bridge, but shoot for even greater fidelity, as there's a clarity here that's perhaps a cut above the guitars that came before. That's not necessarily to say that the treble is excessive or shrill but simply that the tone is wide open, airy and precise. The bridge pickup is agreeable and full in the midrange too, which is something that certainly can't be said for many Stratocasters.

Since vintage Strat and Jaguar pickups appear so similar – especially Jaguar pickups with staggered slugs such as these – what accounts for the disparities in tone? It's a much-debated topic. It's been suggested that the metal claws on Jaguar pickups were Leo's attempt to balance the response by altering the magnetic field to bolster the plain strings.

Look closely and you'll see that the 'teeth' are not all equal in height. The taller teeth were intended to correspond with the plain strings, so it would appear that both claws on this Jaguar may actually be fitted the wrong way around.

THIS SPREAD The Firemist Gold Jaguar features a matching peghead with its logo intact and F-stamped tuners, which Jaguars were among the very first Fenders to sport

FACING PAGE The Jaguar has retained its bridge mute but the foam rubber has dried and shrunk so much that it has no effect. This won't be a deal-breaker, even for Jaguar fans, but it's worth noting that functioning mutes can produce very cool textures when used in combination with spring reverb

Some argue that the claws have little or no audible effect but, if that's the case, we wonder why there's so much body to the sound and the treble isn't excessive when the Jaguar, like the Jazzmaster, is equipped with one-meg control pots. Anybody who has played a Strat or Tele with one-meg pots will know that the treble can be challenging. There's clearly something else going on here.

Fans of the much-maligned rhythm circuit will be relieved to hear that it's getting an evaluation too. We can't replicate the rhythm circuit tone simply by selecting the neck pickup and dialling the tone control back – there's something fuller and bouncier in the lows and low-mids that makes the rhythm circuit better suited to comping jazz chords.

Granted, that's a little niche. But try activating a fuzz pedal and the rhythm circuit actually sounds fatter, smoother and clearer. Start exploring delay and extreme reverb effects, and you'll be in ambient heaven.

Under the influence of a Big Muff, the Jazzmaster hits 1990s indie-rock territory, but the Jaguar sounds a few decades older, channelling mid-1960s garage rock as readily as Morricone-style soundtracks, especially with the mid/bass cut of the strangle switch engaged.

The Jaguar's shorter sustain, woody punch and chiming clarity through a clean Fender or Vox amp is practically unbeatable for 1960s-inspired rhythm parts. Similarly, if it's 1980s indie arpeggios you want, the results are instantaneous and guaranteed.

Noise pioneers such as New York's Sonic Youth began playing offsets because they were cheap but high-quality options in an 1980s guitar market that was dominated by shred-obsessed players. Although vintage offsets are nowhere near as affordable as they once were, they're still priced lower than the Strats and Teles of the same era.

Our Firemist Gold Jaguar commands a premium because of its originality, condition and rare custom-colour finish. You could buy a regular sunburst 1966 model for less than half of its current asking price but this is indisputably a collector-grade example. That said, we hope it ends up with someone who appreciates just how fine an instrument this is.

With a price that's not much higher than the modern Fender Custom Shop reissue, the Jazzmaster's refin not only makes it a relative bargain but also a blank canvas should you prefer to have it finished again in another colour. Either way, there are innumerable joys to be had with this guitar. **G**

WHO REALLY INVENTED THE HUMBUCKER?

THE RAY BUTTS ARCHIVE REVEALS MORE SECRETS ABOUT THE RACE TO DEVELOP THE FIRST HUMBUCKING PICKUP FOR GUITAR

WORDS MATT BLADES

Who invented the humbucker? That's easy. It was Seth Lover, right? Except Ray Butts got his Filter'Tron patent first, right? Or perhaps they arrived at the idea at the same time? Whichever variation on this answer you go by, the canonical version of events (usually) goes as follows:

At 1957's NAMM Show, both Gibson and Ray Butts – with Gretsch – showed up with a humbucking guitar pickup. Gibson's unit came to be known as the PAF (Patent Applied For) pickup, and was created by the company's electronics expert Seth Lover. Butts' pickup was the Filter'Tron, which was used in Gretsch guitars from the late 1950s onwards. There was some fallout after the show but Gibson and Gretsch eventually reached an agreement. Butts and Lover invented their pickups independently of one another, and just happened to do so at the same time – and it's often assumed that neither party had prior knowledge of what the other was working on.

Only that isn't true.

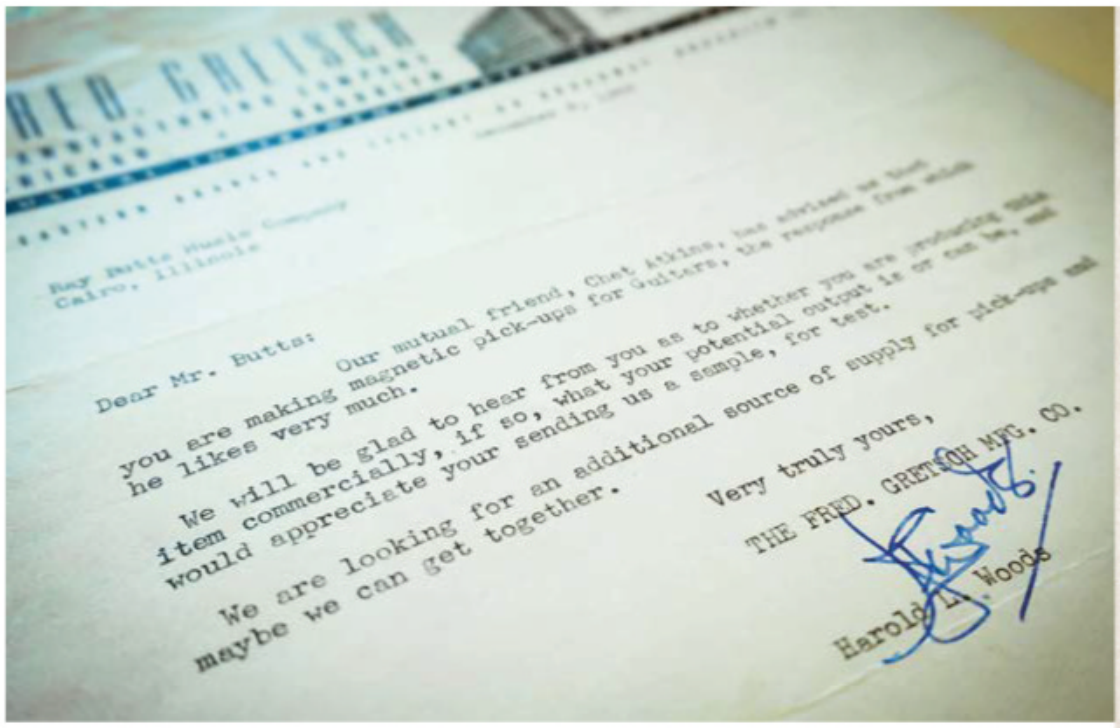
As we revealed in issue 381, pickup manufacturer Thomas Vincent 'TV' Jones has been granted access to a wealth of Ray Butts' original schematics, business documents and personal correspondences that has been largely unpublished or unexplored up to this point. Searching through these papers has revealed letters sent to Ray by the then-president of Gibson Ted McCarty, dated 12 October and 21 November 1956. The contents are illuminating to say the least.

The correspondences demonstrate that Gibson *did* know about the Filter'Tron prior to 1957, that Ray knew about their humbucker, and that both were concerned about a conflict between them.

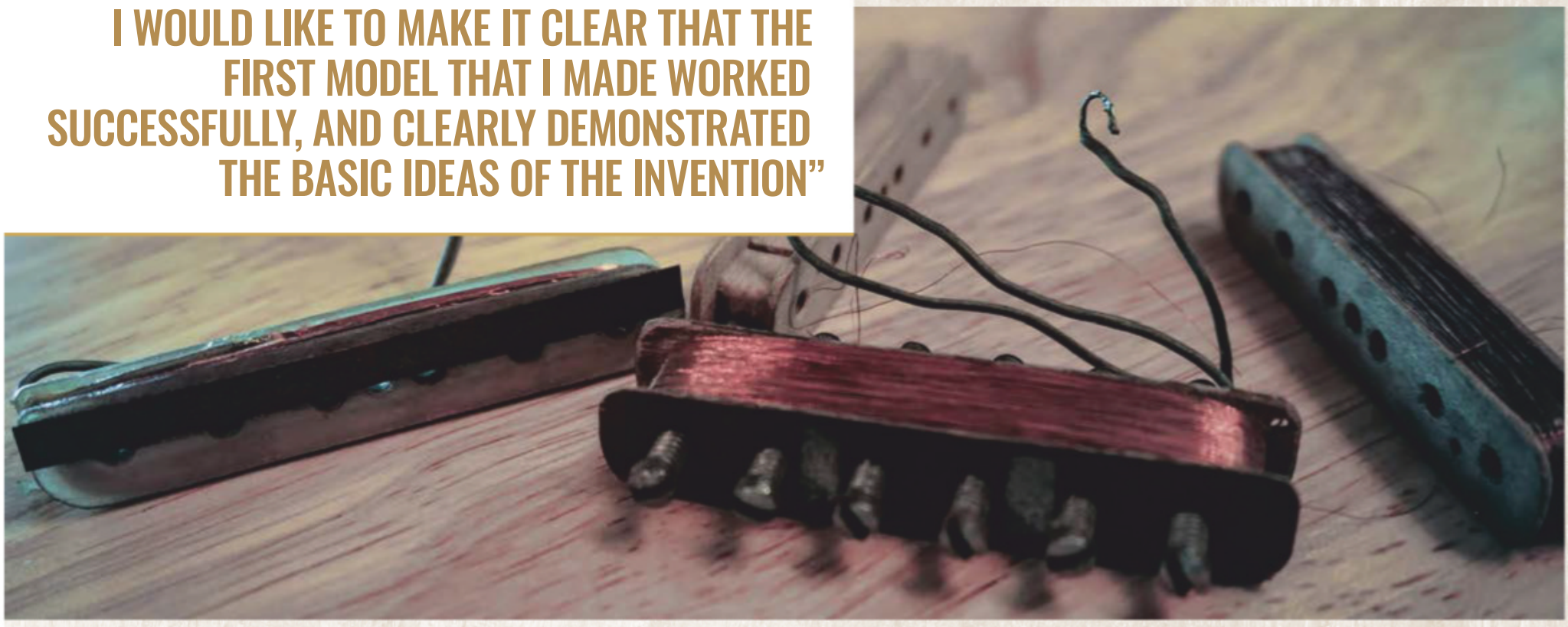
Ray had found out about Lover's pickup through its announcement in the October issue of the *Gibson Gazette* in 1956. He wrote to Gibson immediately and raised the issue, informing them of his own invention. In his first response, McCarty is relatively reserved. "Without knowing the principle of your pickup," he says, "it is not possible to make a statement regarding the compatibility of the two units." Ted goes on to write that Gibson had been researching the concept for "quite a few years", and mentions the company's patent application for the design, which was dated 22 June 1955.

FACING PAGE Ray Butts revolutionised the guitar world but rarely gets the credit he deserves

ABOVE Guitarcheologist Thomas Vincent 'TV' Jones excavating details from the Butts archive



"THE PICKUP I HAVE IS OF MY OWN INVENTION. I WOULD LIKE TO MAKE IT CLEAR THAT THE FIRST MODEL THAT I MADE WORKED SUCCESSFULLY, AND CLEARLY DEMONSTRATED THE BASIC IDEAS OF THE INVENTION"



ABOVE Tom's dive into the archives has revealed many previously unseen correspondences, including this letter from Gretsch to Ray regarding the pickups he'd made for Chet Atkins, and tense exchanges between Ray and Gibson's then-president Ted McCarty

In his second letter, though striking a conciliatory tone, McCarty asserts his belief that Gibson is the originator of the humbucker, and that Ray could be infringing upon its patent by continuing his work on the Filter'Tron. He points out that the patent request for Lover's design had been made about 18 months previously, and that unless Ray could "prove a prior right", he should either "cease and desist manufacture or obtain a licence" from Gibson to produce humbucking pickups.

Why the change of approach from McCarty? The opening paragraph of this second letter likely explains it. "It is my understanding that Chet Atkins is playing a new Gretsch instrument which is equipped with two humbucking pickups, which we believe are an infringement of our humbucking design," he says. When he wrote his first response in October, it seems McCarty was unaware that one of the biggest guitarists in the US was already playing to audiences with Butts' humbuckers – and the Gibson humbucker wouldn't even be available until the following year. It's possible that, upon realising this, Ted took a tougher stance.

This a fascinating letter from one of the key movers and shakers of the early days of the electric guitar, and it reveals something all but unknown about the origins of the humbucker. What's even juicier than Ted's defensive manoeuvre, however, is Ray's response.

Across three hand-written pages, Ray not only sheds more light on this particular portion of guitar history but also provides a solid sense of his character. This was a man unwilling to be cowed by a large company such as Gibson. He agrees that, without comparing the two pickup designs, it's difficult to draw conclusions on their similarities. But he then matches McCarty's assertiveness. "The pickup which I have is of my own invention," says Ray, "and I have good reason to believe that I can prove that my invention was made substantially prior to the one which you have."

Ray digs in on the patents too. "It is the advice of my attorneys, who have full knowledge of the circumstances as they thus far exist, that my position is a reasonably secure one and that it is very likely that you may find yourself in the position of being an infringer."

He goes on to add that McCarty's mention of ceasing work on the Filter'Tron or getting a licence is "presumptuous" but that he would be happy to look at copies of the relevant patents to see if there is indeed an infringement on his part.

It's likely that Ray then typed up this letter before sending it. But neither the typed version nor any response from Gibson has ever been found. Nevertheless, it's all too tempting to imagine the Gibson president's reaction.

Both Butts and McCarty note that development of their respective humbuckers began years before this point and, on the face of it, this only adds to the uncertainties of the timeline. But it's important to consider everything Ray says in his letter, especially on the second page.

"In your letters you seem to be under the impression that the pickup which I have is something which I am working on and do not have perfected," he says. "I would like to make it clear that for the purposes of the invention the first model that I made worked successfully and clearly demonstrated the basic ideas of the invention."

Ray goes on to state that all work in the years since has been simply refining and modifying small details. He's suggesting here that what's important is not when someone started conceptualising or researching the idea but the point at which they had a functional and fully realised invention. By stating that he began his work years prior, and that his very first humbucking pickup build was successful, Ray is asserting that he got there before Gibson did, who were likely at such a stage in early/mid-1955, before the company's patent application.

For TV Jones, the confidence of Ray's response and his intimation of proof to back up his claims is a revelation in itself. "This is so important," says Jones. "People need to see this."

The letters inspired Jones to dive into the rest of Butts' documents with even greater fervour, in case there's proof that Ray's invention did indeed arrive before Lover's. "If there's evidence here that Ray was already making the Filter'Tron in early '55 or in '54, that's huge," he says.

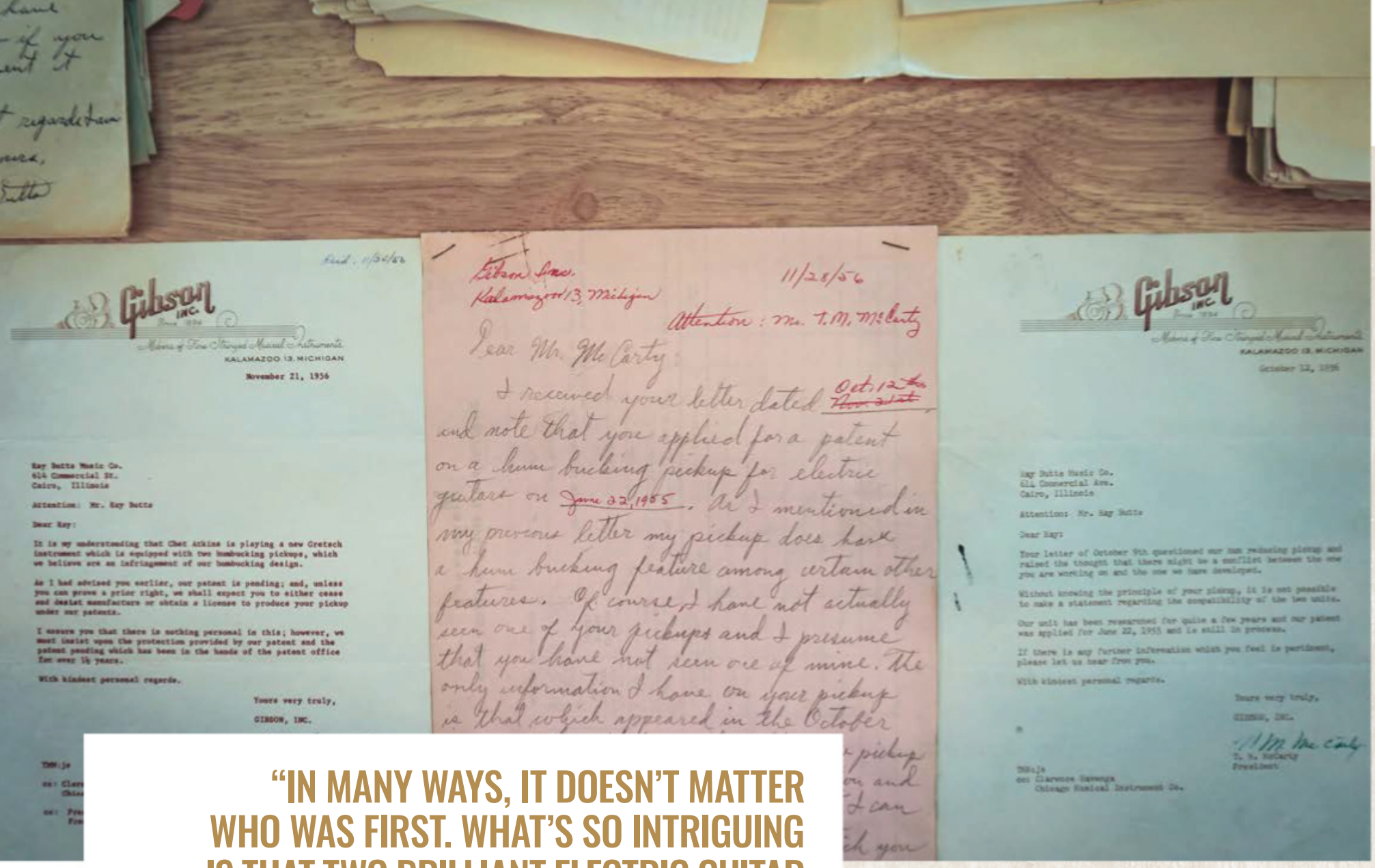
However, with many of the artefacts and paperwork not clearly dated, finding such evidence isn't easy. A document from Ray's attorneys provides part of the timeline for the development of the Filter'Tron. The itemised bill lists three different matters handled for Ray between 16 July 1954 and 30 November 1956. The services appear to be listed chronologically, and the first of these regards a patent application for a reverb apparatus that Ray invented. Other documents show his work on this apparatus took place in early 1954.

ABOVE Tom examining the Filter'Tron patent awarded to Ray on 30 June 1959

The next matter concerns "services re your new low-hum-level pickup". This suggests that Ray had asked his attorneys to perform services regarding his humbucking pickup design between early 1954 and November 1956. Ray's letters to McCarty imply that he only found out about the Gibson pickup in October, and he tells McCarty that he has already spoken with his attorneys. The bill here also states that his lawyers looked into "possible interference with the Gilson co", presumably meaning Gibson. At least some of this work, then, was carried out in October-November '56.

But most likely not all of it. With the bill dated 30 November 1956 and with two succeeding items, it's possible that Ray had first contacted his lawyers regarding the new invention much earlier. The "loud speaker construction" listed after the pickups is shown in other documents to have occupied Ray in early/mid-1956, which suggests that Ray was in contact with his lawyers regarding the pickup a while before his exchange with McCarty.

Another possible hint comes from correspondence between Ray and Chet Atkins. Ray developed his new pickup because Chet was frustrated with the hum from his DeArmonds. Impressed by Ray's EchoSonic amplifier and other works, Atkins decided that Butts was the only one who could get the pickup right. The two were already exchanging letters in early 1954, at which point Atkins was certain he would use the EchoSonic on his next record. Again, this makes it possible that Ray was tackling the pickup issues for Atkins as early as 1954 and, if his claim that he got the humbucker to work on his first attempt is accurate, this would date the invention to that year. But of course, it's not quite that easy.



"IN MANY WAYS, IT DOESN'T MATTER WHO WAS FIRST. WHAT'S SO INTRIGUING IS THAT TWO BRILLIANT ELECTRIC GUITAR PIONEERS INDIVIDUALLY DEVISED UNIQUE INVENTIONS TO IMPROVE THE TONE AND POSSIBILITIES OF THE INSTRUMENT"

Definitive proof remains elusive. The timelines are full of overlaps, coincidences and simultaneity – even down to the patent applications for Butts' and Lover's new pickup designs. Lover applied first and Butts second, and Ray received his first on 30 June 1959, with Lover's arriving on 28 July.

From these relatively humble beginnings, these remarkable inventions went on to become beloved innovations that changed the world of the electric guitar and popular music. PAFs started appearing in many Gibson models – including the Les Paul Goldtop and Custom – in early 1957. Chet Atkins had told his friends at Gretsch about his new wonder-pickups and insisted on having them in his guitars from that point on. Gretsch contacted Ray in December 1955 asking for more information and stating the company's interest in his work. Filter'Tron pickups began appearing in Gretsch models in 1957, and replaced almost all other pickups in their line-up over the following years.

The importance of these documents and the stories they're wrapped up in go beyond the simple matter of who came first. It's about shedding new light on a principal period of our instrument's history. Two ingenious inventors, working at roughly the same time, arrived at the same basic solution: an additional coil that could eliminate the hum of guitar pickups. They had similar inspiration (Lover's came from the use of coils in Gibson amps, Butts' from Ampex tape heads), they both worked completely independently of one another, and they both deserve equal praise and acknowledgement.

While they both set out to fix the same issue, Butts and Lover created two different schools of pickup-making. The Filter'Tron inhabits a space apart from the PAF and more 'standard' humbuckers, both tonally and visually. This is why it's travelled its own path over the years, and that's why, when players discover that they like it, they tend to stick with it. Filter'Trons have a sound of their own, with a delicious blend of warmth and clarity. Meanwhile, PAF replication has become an industry in itself, with many blues and rock players regarding Lover's design as the Holy Grail of guitar tone.

It's well documented that Lover had a hard time when he applied for his patent, and Ray's papers reveal that he came up against precisely the same difficulties. The lawyers assisting both were troubled by three pre-existing patents under the names Knoblaugh (1935), Russel (1939) and Keller (1952). These all related to a double-coil design for use with stringed instruments, making the debate about who came first all the trickier. However, the inventions of Seth Lover and Ray Butts were rightly deemed original in their designs and in their specific applications to the electric guitar.

In many ways, it doesn't matter who was first. What's so intriguing is that two brilliant electric guitar pioneers individually devised unique inventions to improve the tone and possibilities of the instrument, and their innovations continue to impact and inspire musicians to this day. Popular music wouldn't sound the same without them. **G**

NEXT MONTH How Ray's inventions impacted the music of the time

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RELISH
TRINITY

WORDS RICHARD PURVIS

High-end Swiss maker Relish has unveiled a less dauntingly priced introduction to its instant pickup-switching concept – but can the Trinity really replace two or three regular guitars in your collection?

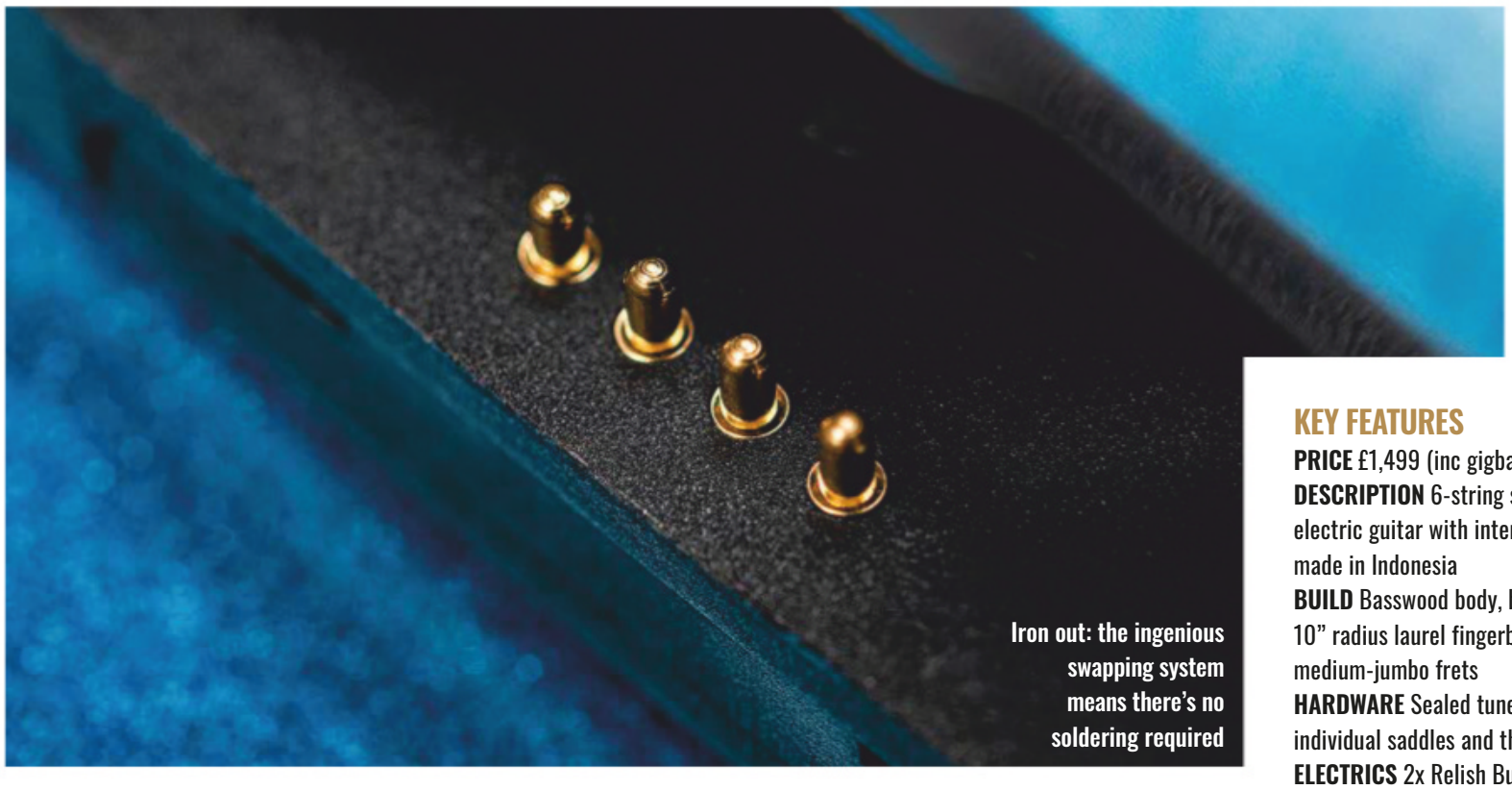
Wherever you stand in the debate about which parts of a guitar have the biggest influence on tone, we can surely agree that pickups are one of the most significant elements in shaping an electric solidbody's core voice. In that case, a guitar that can be quickly switched between humbuckers, P-90s and single-coils should effectively serve as three instruments in one, right?

Thinking in those terms should certainly help lower your eyebrows if the Trinity's price tag raises them. Though it's assembled in Asia and misses out on some of the hi-tech design flair of its Swiss-made stablemates, the Trinity By Relish still comes in at £1,499. But price aside, whether you view it as one spectacularly versatile guitar or several different ones sharing the same skeleton, the Trinity will need to get all the basics right if it's going to persuade guitarists that its hot-swapping pickup system is the future.

After all, the concept has been attempted several times already – and with little success. Famously, there was Ampeg's Lucite-bodied Dan Armstrong model from 1969, which had a single pickup that slid in and out from the top. A number of later pioneers went for the rear-mounting approach – among them UK luthier John Birch (with help from a certain Tony Iommi), and even Gibson, which launched the limited-edition Les Paul Push Tone in 2008 – but, for whatever reason, none of these would-be revolutions took off.

There's no denying the user-friendly simplicity of Relish's magnet-based system, which was a big part of why the company's Mary One garnered a glowing 9/10 review from us in 2019. That winsome Swiss creation also impressed us with a host of other forward-thinking features, including its strand-woven bamboo fretboard, its extra-strong bent-back headstock and, of course, the body's 'floating-sandwich' construction.

Take your pick: Relish's magnet-based pickup mounts make changing tones simple



Iron out: the ingenious swapping system means there's no soldering required

This unusual space-age assembly method has nothing to do with an astronaut's lunch – it simply means that the wood laminate top and back are held apart from the central aluminium frame by a layer of a rubber, which Relish says increases resonance.

In order to shave two grand from the Mary One's price tag, the Trinity has none of that futuristic stuff. The body is solid basswood, the fretboard is laurel and the headstock has a scarf joint running between the first and third frets. It also lacks the Mary One's blendable piezo sounds, sporting just a simple hardtail bridge, three-way switch, and master volume and tone controls. Pickup-swapping aside, this is a traditional solidbody electric guitar, albeit a very sleek and striking one.

The build quality does not appear to have taken a massive hit with the move to Indonesia. Our review instrument's 24 medium-jumbo frets are neatly fitted, the neck join is impressively snug and the hardware feels satisfyingly slick and robust.

KEY FEATURES

PRICE £1,499 (inc gigbag and two pickup sets)
DESCRIPTION 6-string single-cutaway solidbody electric guitar with interchangeable pickups, made in Indonesia
BUILD Basswood body, bolt-on maple neck, 10" radius laurel fingerboard with 24 medium-jumbo frets
HARDWARE Sealed tuners, fixed bridge with individual saddles and through-body stringing
ELECTRICS 2x Relish Bucker XX, Relish P-90 and Relish Single-Coil pickups with magnetic mounts; master volume and tone controls, three-way pickup-selector switch
SCALE LENGTH 25.5"/648mm
NECK WIDTH 41.9mm at nut, 51.2mm at 12th fret
NECK DEPTH 20.6mm at first fret, 24.1mm at 12th fret
STRING SPACING 34mm at nut, 53mm at bridge
WEIGHT 3.0kg/6.6lb
FINISH Metallic Blue (as reviewed), Red or Black
LEFT-HANDERS TBC
CONTACT relish.swiss

Relish the thought: Seymour Duncan and Bare Knuckle pickups are also available via the Relish website

The neck humbucker doesn't pop out quite as easily as it should but the openings on production guitars will apparently be slightly wider than on this prototype.

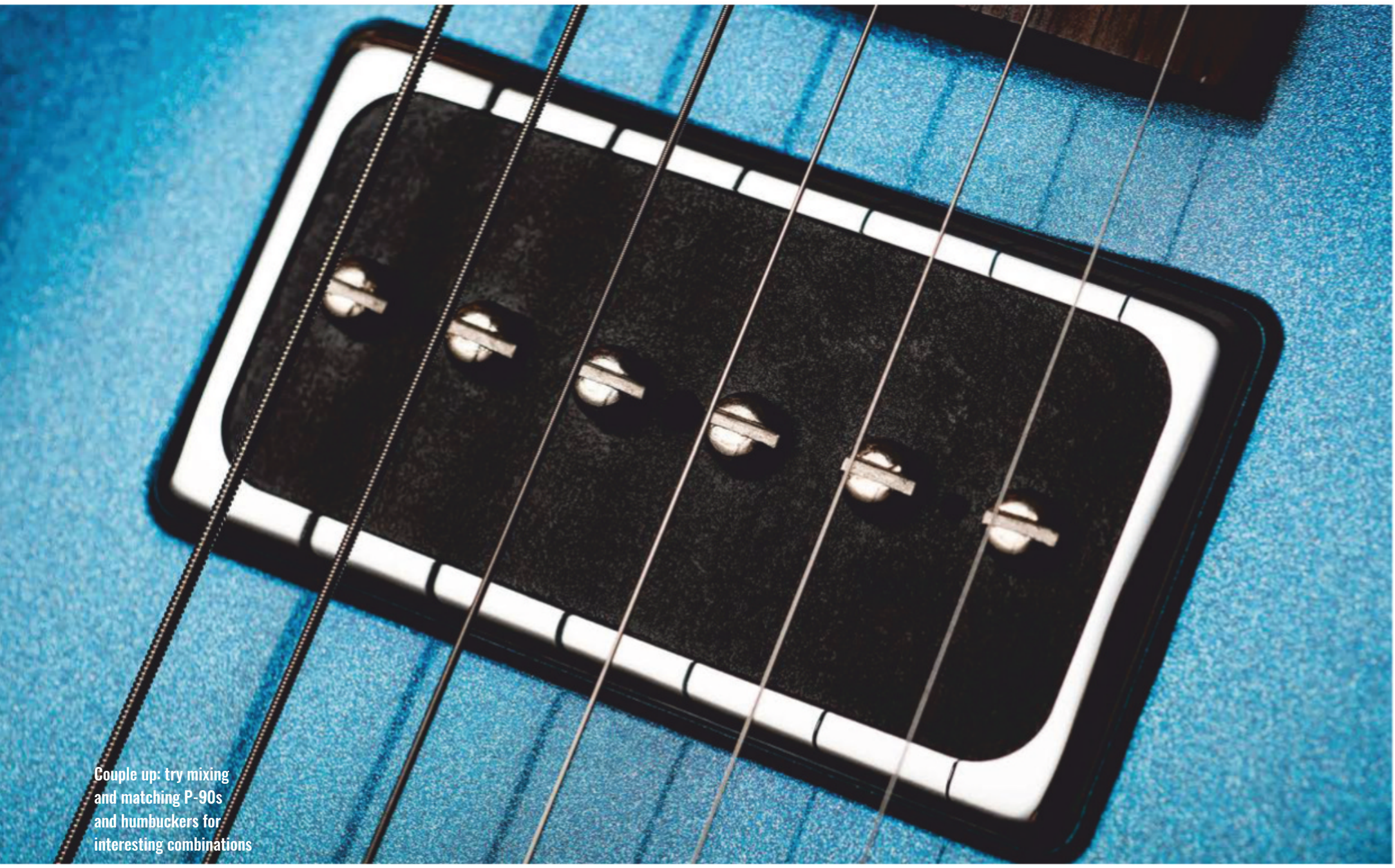
Note that although we're testing the Trinity with three different varieties of pickup, the price shown here includes two pickup sets. Want more? Extra pickups are available with Relish's magnetic mounts fitted, including some Seymour Duncan and Bare Knuckle models, and prices start at about £300 a pair.

IN USE

The Trinity arrives with humbuckers installed, so that's where we begin. This fusion of Gibson-style electronics with Fender-influenced construction (it's a bolt-on neck with a 25.5-inch scale length) seems to have become the default formula for the industry's modern-day indie builders, and it's always interesting to find out where on the line between those classic reference points a guitar's sound falls. Here, it's initially towards the Gibson end.

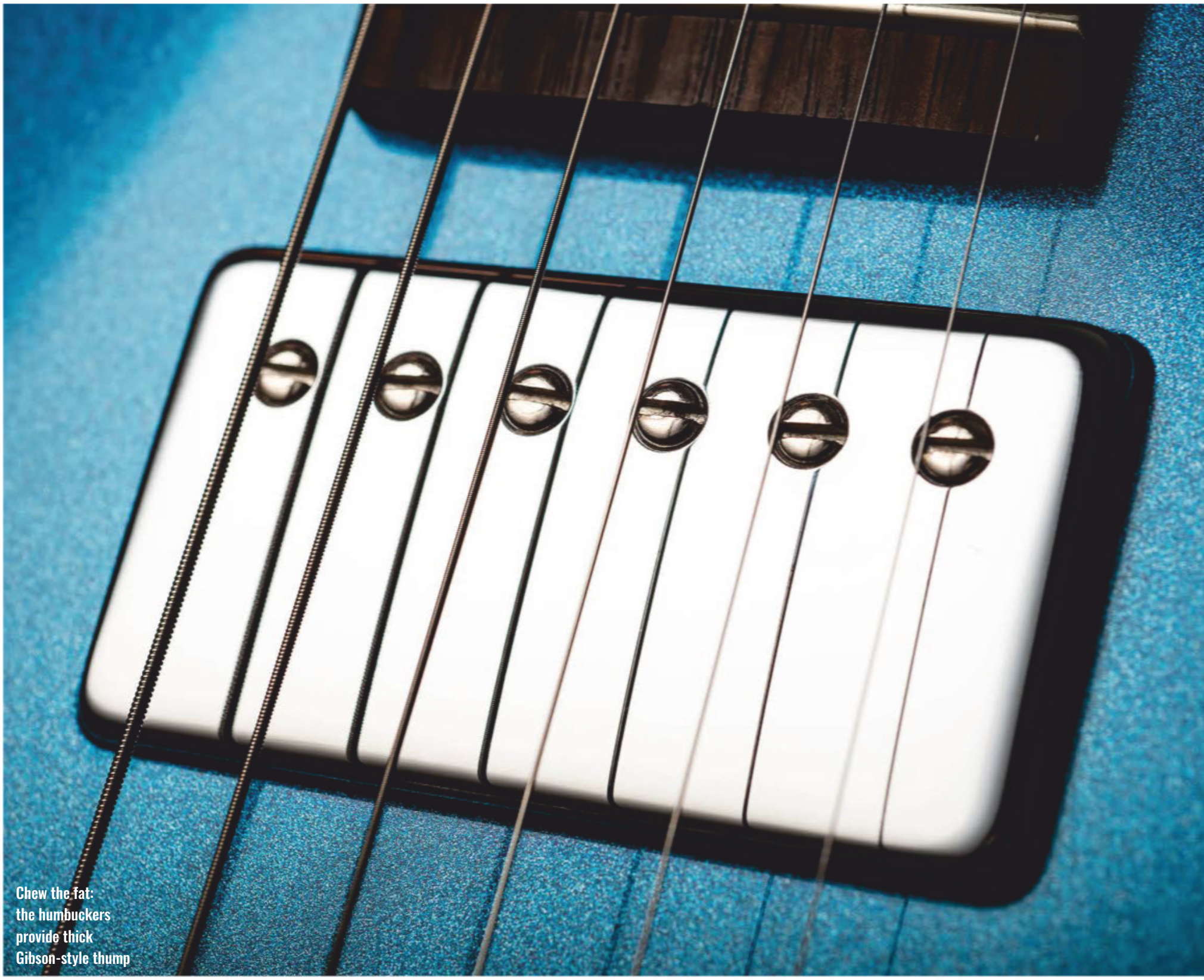
A balanced but unspectacular acoustic voice translates into an amplified tone that's thick and honky, with plenty of bass thump but not much in the way of air. That makes the Trinity's humbucking mode a less than ideal choice for brisk rhythm playing but means that a bit of overdrive really brings it to life. Chords are chunky but taut, while lead lines are smooth and assured.

When we whip out the humbuckers and give Relish's P-90s a spin, the contrast could hardly be more extreme if we put down



Couple up: try mixing and matching P-90s and humbuckers for interesting combinations

Get your fix: the hardtail bridge is sleek but rugged



Chew the fat: the humbuckers provide thick Gibson-style thump

Clean sweep: the laurel fingerboard features 24 neatly fitted medium-jumbo frets

the guitar and picked up a flute. EQ-wise, there's a significant drop-off in bass and a dramatic livening up of the top end, instantly transforming our refined noodling machine into a bit of a yob. The classic P-90 snarl is present but here the sound is closer to that of a Telecaster than an SG Special.

So what sonic territory does that leave the single-coils to explore? Predictably, this is another step in the direction of Fender zing at the expense of Gibson fatness – but it might be further than some want to go. There's chime galore and loads of country cluck in the middle position but it can sound somewhat clinical compared to a good Tele or Jazzmaster.

But that's not all the Trinity has to offer. Mixing and matching between the three sets here gives us a total of nine possible pickup combinations. Most obviously, a humbucker at the bridge and a P-90 at the neck – the classic Duesenberg couplet – can work well for switching between crunchy rhythm playing and high-gain solos. This is actually the only arrangement involving a single P-90 that doesn't cause quacky phase-cancellation in the middle position but that's not to say the others aren't worth exploring.

What the Trinity delivers is a remarkably diverse set of tones (some better than others) for less than you'd probably pay for a couple of fixed-pickup guitars of comparable quality. But now imagine it with Filter'Trons, gold foils, toaster tops… this thing has huge potential as a tweaking platform for curious tonehounds, providing a solid base of playability for whatever voices you wish to equip it with. All it needs is a broader array of adapted pickups and then maybe, this time, the idea has a chance of catching on.

8/10 **The Relish concept becomes more affordable but its creative potential remains extraordinary**

LIKE THIS? TRY THESE...

Gibson Les Paul Push Tone, Mercurio Guitar, Ampeg ADA6 (all used)

GORDON SMITH
GS DELUXE SEMI SOLID

WORDS RICHARD PURVIS

Guitar.com EDITOR'S CHOICE

You may associate Gordon Smith with stripped-down punk axes but this chambered charmer suggests the UK maker can compete at the classier end of the market too

Founded in Manchester in 1974, Gordon Smith upped sticks to the sleepy Northamptonshire market town of Higham Ferrers after being bought by Auden Guitars in 2015. It's still taking on the Asian factories with no-nonsense instruments for less than a grand, but the Deluxe Semi Solid shows Gordon Smith is out to prove that it has more to offer than the affordable LP Junior alternatives that made its name.

Before we go into detail on the specs of our review instrument, it's worth pointing out that Gordon Smith guitars are built to order, and practically all their parts are customisable. This model is available with a choice of pickups, woods, bridge types, tuners, neck thicknesses, fretwire materials and more, including just about any colour your over-stimulated mind can think of.

Some of these options inevitably bump up the price but there's nothing essential missing from the base model. Our guitar has three non-standard options – metallic paint (£100), Gotoh 21:1 ratio tuners (£100) and Gotoh X Chrome hardware (£250) – but while they're all nice additions, we don't think it would be underdressed for the prom without them.

In conception, the GS Deluxe Semi Solid is a flat-topped semi-hollow guitar with Gibson-style construction; unless you specify otherwise, the body is mahogany with a bound maple cap, while the set neck is mahogany with a bound rosewood fretboard. How hollow is semi-hollow? In this case, there's a chamber in the lower part of the body to match the one you can see behind the f-hole, but everything between the waist and the neck join is solid. It certainly sounds more open and clangy than a Les Paul when strummed acoustically but you might argue that it's not a true semi-acoustic.

Gordon Smith's in-house humbuckers have ceramic magnets and are wax-potted. They also benefit from a nice bonus that you don't have to pay extra for: they're independently coil-splittable. The master volume knob pulls up to turn the neck 'bucker into a single-coil, while the tone knob does the same for the bridge unit. This brings the total number of pickup settings to eight, including the two mismatched options, and means you can instantly flick between a slimmed-down rhythm sound and something more chunky when it's time to launch into your dog-startling solo.

It may be a bit of an indulgence at £250 but we love the cloudy hue of that Gotoh X Chrome hardware finish. This has been applied to everything from the tuners to the pickup covers and the bridge, which is Gotoh's 510FB tune-o-matic type – a solid chunk of metal with grub screws locking the saddles in place. The one bit of metal that looks distinctly un-cloudy is the gleaming brass nut, which stands out like a ginger-haired fifth Beatle.

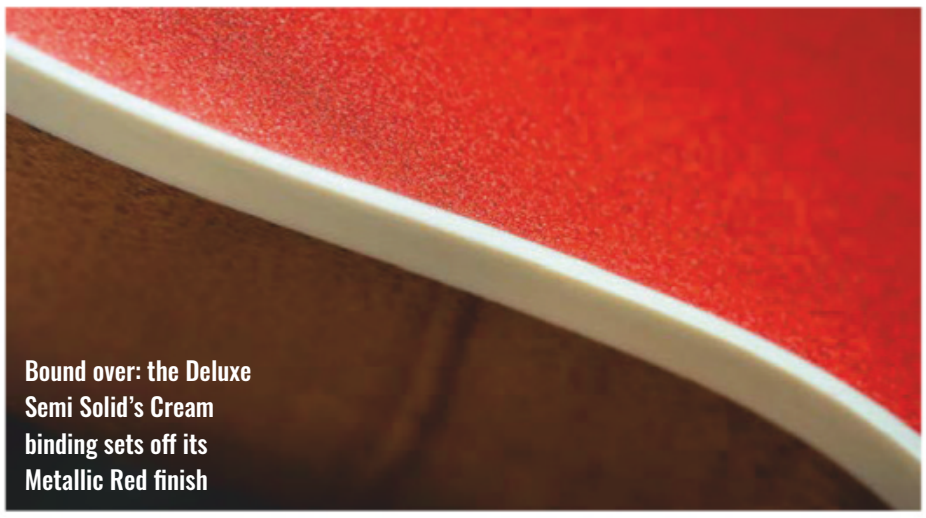
It's not unfair to say that Gordon Smith has struggled with the consistency of its build quality over the years – but you wouldn't know it from this guitar. The binding is tidy, the neck join is flawless and there's nothing 'garden-shed project' about the way it's been put together. Only some stray flecks of metallic paint on the cream binding detract from the impression of high-end professionalism.

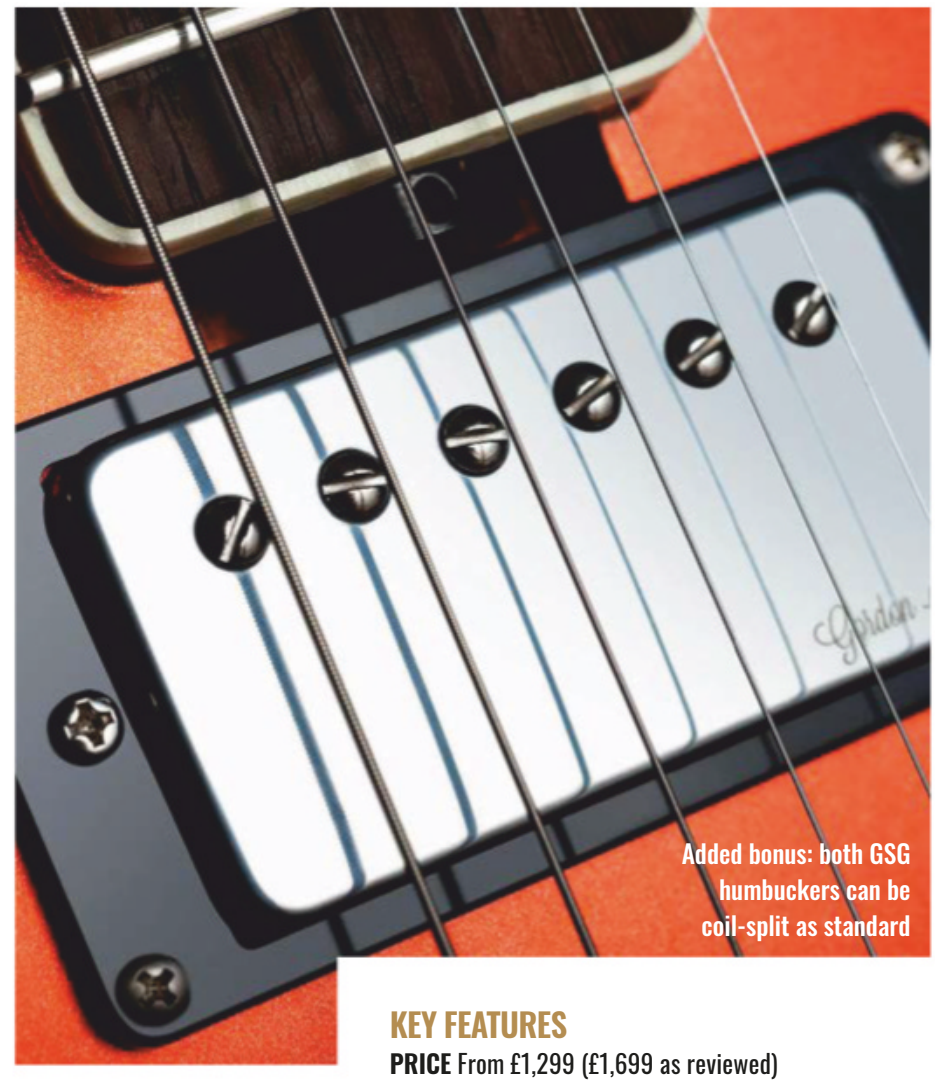
IN USE

Because of its compact form and limited chambering, we're inclined to think of this guitar as an LP type with some wood scooped out rather than an ES-335 type with some air filled in. Tonally, however, there's a lively looseness to its amplified voice that feels distinctly semi-acoustic.

In pure EQ terms, there's no doubt we've landed right in the middle of Gibson territory. The neck humbucker is bold and chunky, fluffing up nicely with some tweed-like overdrive, while the bridge pickup offers lots of bark but isn't as bright as our reference Les Paul – partly, perhaps, because it's about 3mm further away from the saddles.

So solid screws: the Gotoh tailpiece is a sturdy chunk of hardware


Bound over: the Deluxe Semi Solid's Cream binding sets off its Metallic Red finish


Added bonus: both GSG humbuckers can be coil-split as standard

Golden ratio: our review model has smooth and reliable Gotoh 510 tuners

KEY FEATURES

PRICE From £1,299 (£1,699 as reviewed) inc hard case
DESCRIPTION 6-string semi-solid single-cutaway electric guitar, made in UK
BUILD Chambered mahogany body with maple top, set mahogany neck, 12" radius rosewood fingerboard with 22 medium-jumbo frets and brass nut
HARDWARE Gotoh 21:1 ratio tuners, 510FB bridge and stoptail
ELECTRICS 2x GSG humbuckers, master volume with pull-out coil-split for neck pickup, master tone with pull-out coil-split for bridge pickup, three-way switch
SCALE LENGTH 24.6"/625mm
NECK WIDTH 42.9mm at nut, 52.0mm at 12th fret
NECK DEPTH 20.9mm at first fret, 22.3mm at 12th fret
STRING SPACING 36mm at nut, 52.5mm at bridge
WEIGHT 3.2kg/7.1lb
FINISH Natural mahogany with Metallic Red top (see website for full range)
LEFT-HANDERS Yes, no extra charge
CONTACT gordonsmithguitars.com

In all three positions, the emphasis is on a strong and focused midrange, making this a fine guitar for old-school riffs and power chords. Clean, it's not quite so much fun – those ceramic pickups are by no means hot but they're not exactly intimate either. Luckily, it's easy to take things down a few notches by pulling up on one (or both) of the controls to go into single-coil mode.

We're thankful for those independent coil-splits because two of the best sounds here are available when only one split is engaged. In the middle position with both pickups split, it's as if you're playing an underpowered Strat. But bring one humbucker back into the mix and you'll trade in some of that phasiness for a breezy rhythm tone that's fuller and smoother but no less sweet.

On their own, both single-coil sounds are eminently usable, thinning out the lower mids and dialling up the Fender-style cluck. You could begin a blues solo on the neck pickup in single-coil mode then whack it to the bridge 'bucker when things get spicy. Set your amp's preamp gain at just the right point and this will lift you from clear and twinkly to fat and punchy as effectively as any boost pedal.

Since Gibson pulled the plug on its Midtown range, there haven't been many flat-topped semis around, but the GS Deluxe Semi Solid makes us wonder why. For some players, it'll be a perfectly viable alternative to either a Les Paul or an ES-335, and the classy coil-split tones make it more flexible than both. Who needs Nashville when you've got Higham Ferrers? G

9/10 **A cracking little rock and blues guitar that's more versatile than it looks**

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PRS S2 Vela Semi-Hollow **£1,599**, Eastman SB59 **£1,599**, Gibson Les Paul Tribute **£999**

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BRITISH INSTITUTION

INTERVIEW JOSH GARDNER **PHOTOGRAPHY** JOE SUPPLE

Doug Sparkes is aware of the responsibility he's assumed since buying Gordon Smith four years ago. But the rebirth and reinvigoration of the UK brand might not have happened were it not for some speculative post-pub googling

Auden Guitars owner Doug Sparkes cradling a GS Deluxe Semi Solid

How many of us have found ourselves on Reverb or eBay after a few too many beverages and, several days later, answered the door to the postman only to discover we'd tipsily bought something on the spur of the moment? One evening a few years ago, Auden Guitars owner Doug Sparkes took online shopping to a whole new level when he placed a bid for something slightly more substantial than a new effects pedal.

"When I bought this building, the idea was that half of it was going to be the Auden workshop and office, and half I was going to rent out as a shop," says Doug, as we tour the old Co-operative building in Higham Ferrers that's now the workshop and HQ for both Auden and Gordon Smith.

"I got home from the pub one night thinking, 'Is there something to do with guitars that could fill that space?' So I searched 'Guitar business for sale', thinking there might be a retailer that could move in, and on my screen came 'Guitar manufacturer for sale, Manchester'. I thought, 'That can only be Gordon Smith!' So, over a few days and about 1,000 cups of tea, John Smith and I did a deal for Gordon Smith to join the Auden family and moved it all down to this workshop."

Gordon Smith had been a British guitar institution for nearly half a century but, for Doug, the chance to take on its legacy held special significance.

"I grew up with the back end of punk rock and was a massive Buzzcocks and Pete Shelley fan," says Doug. "I always say that he was the father figure for Gordon Smith, because he was such a great ambassador for the brand. I grew up loving bands that played Gordon Smith guitars."

KEEPING IT ALIVE

Doug's love for the history of the brand is evident – the first-ever Gordon Smith guitar hangs pride of place on his office wall – but it's clear that this process is about more than merely keeping a venerable name in UK guitar making alive: it's about the industry as a whole.

"Gordon Smith is extra special to me because of its history and its heritage but we want to ensure that British guitar building has a future, not just Gordon Smith," says Doug. "We still do everything by hand. We don't have any CNC machines, it's all templates, hand tools, sandpaper and sore fingers. We still make all of our own pickups in-house, using the same wiring patterns that John used. It's still 100 per cent hand-built British guitar."

If you're going to hand-build a guitar, you need luthiers. Today the shop is bustling with young men and women working under the stewardship of head luthier Rob Bowman, but it hasn't always been easy to find them.

"There aren't hundreds of people going to the Jobcentre saying, 'I'd like to be a guitar builder'," says Doug. "But if we can find the right people, we will invest the time and energy, and give them the skills they need. We brought a couple of apprentices through, and we sponsored a guy who was going through the University of London's guitar-building course. We've brought in guys in who were hobbyists or enthusiasts and trained them.

"If we want to have a British guitar-building industry, we've got to take that responsibility seriously. People like us and Crimson, we need support, we need people to buy into what we're trying to do here."

NEW NOISE

What Doug is trying to do is bring Gordon Smith into the 21st century, and carve out an identity that will allow the brand to flourish beyond the dedicated enthusiasts who've kept the company alive until now.

"When we took on the brand, the only people that were buying Gordon Smith guitars were people that already owned Gordon Smith guitars," says Doug. "The big challenge for us is attracting the next generation of players. How do we get that 17-year-old kid to aspire to play Gordon Smith instead of one of the big American brands?"

Doug is determined to maintain Gordon Smith's hand-built ethos

Key to this has been some soul-searching about what Gordon Smith is, and what it needs to become, in order to set itself apart.

"I don't think it's unfair to say that towards the end of Gordon Smith's previous incarnation, it had lost some of its identity," says Doug. "So we worked hard to develop guitars such as the GS-1000 and the GS Deluxe, which have definite identities as Gordon Smith guitars. It was also important to improve the quality. Every single component – from the wood to the pickup screws to the plastics we use – has been upgraded. The prices have gone up but I believe they're still very affordable for hand-built guitars. It reflects the improvements we've made in quality."

OPEN DOORS

It's easy to talk a good game about how great your guitars are but it's quite another to tell the public that they're welcome to drop by at any time to take look for themselves. And that's exactly the approach Doug has adopted (at least, when we're not in the midst of a global pandemic, of course). He's ready to show the world just what Gordon Smith's team of luthiers are up to inside the old Co-operative building on a sleepy road in Higham Ferrers.

"It's important for the customer to see that we're offering them a genuinely hand-built instrument, so we welcome people here," he says. "Our doors are open 8:30 to 5:30, Monday to Friday. Anybody can come in and see what we do and get involved – it's not unusual for people to come here, have a look around, and end up winding their own pickups.

"We want it to be an interactive experience. Even if you're not buying and you just want to browse, or if you've got an old Gordon Smith and you want to find out more about it, come and see us. There's lots of stuff here that makes it an interesting day out." G

For more visit gordonsmithguitars.com

Earn your stripes: the Sabre's roasted maple neck has a rich hue and an attractive flame

A cut above: natural binding sets off the Sabre's maple cap

MUSIC MAN
SABRE

WORDS DARRAN CHARLES

Guitar.com EDITOR'S CHOICE

An ancient and sharp-edged weapon from Music Man's past has been forged anew for the modern player. But can it cut it?

The original Sabre electric was a utilitarian George Fullerton and Leo Fender double-cutaway design that featured in the Music Man catalogue between 1978 and 1980. Four decades later, the Sabre model name has returned to the fold in this more luxurious incarnation, whose sleek contouring and carved maple top lands it somewhere between a Stratocaster and a PRS.

The body has been crafted from okoume, a less heavy alternative to mahogany, and atop that is the bookmatched and heavily figured maple cap. It looks absolutely stunning here in moody Cobra Burst and the boutique vibe has been cranked up another notch courtesy of the roasted flame-maple neck, whose finish is as gorgeous as ever thanks to Music Man's proprietary blend of gunstock oil and hand-rubbed wax.

Matte-black hardware is a polarising choice but here it works harmoniously with the guitar's smoky finish. If you aren't a fan, fear not: the Sabre's three other colourways feature chrome parts instead. The perfect weapon with which to lead the charge, then? Let's find out.

IN USE

Music Man describes the Sabre's neck as "slightly wider" than standard, due to its 43mm nut width, but any tangible difference between this and the 41.3mm width sported elsewhere in the catalogue is subtle at most.Initially at least, the neck profile feels rather slender for our tastes. But after an hour or so of playing, the lack of fatigue demonstrates just how comfortable this carve is – and it's a comfort that's enhanced by the drag-free finish.

Armed to the teeth: the Sabre is equipped with Music Man's own Modern vibrato bridge

KEY FEATURES

PRICE £3,399 (inc hard case)
DESCRIPTION 6-string electric solidbody, made in the USA
BUILD Okoume body with carved flame-maple top, C-shape bolt-on neck with 10" radius figured roasted maple fretboard, dot inlays, 22 high-profile medium-wide nickel frets
HARDWARE Schaller M6-IND locking tuners, Music Man Modern vibrato bridge with vintage-style bent-steel saddles
ELECTRONICS 2x Music Man custom wound humbucking pickups, 5-way blade pickup-selector switch, master volume and tone control
SCALE LENGTH 25.5"/648mm
NECK WIDTH 41.3mm at nut, 54mm at 12th fret
NECK DEPTH 20.6mm at 1st fret, 22.2mm at 12th fret
STRING SPACING 54.3mm at bridge, 35.6mm at nut
WEIGHT 3.5kg/7.7lb
FINISHES High-gloss polyester Cobra Burst (as reviewed), Honey Suckle (roasted maple 'board), Bougie Burst (rosewood 'board), Deep Blue Burst (ebony 'board)
LEFT-HANDERS No
CONTACT stringsandthings.co.uk, music-man.com

Weapons of choice: the Music Man humbuckers are well suited to rock

Plugged in, the in-house humbuckers aren't as powerful as the Sabre's rock-machine aesthetic might suggest and, with a Plexi patch dialled in on our Axe-Fx III, the pickups prove to be voiced perfectly for rock and modern blues. Moving into heavier territory with a virtual Diezel VH4, we're enormously impressed by the way the Sabre handles high levels of gain, and the clarity and separation of both overdriven and clean sounds is exceptional. We've rarely heard better note definition for chordal work.

The in-between positions on the five-way selector offers parallel-wired combinations of the humbuckers' inner coils (position four) or outer coils (position two). This unlocks tremendous tonal variety without a drop in volume, and the fit-for-funk spank in position four is enough to make any S-type sweat.

The Sabre lives up to its pro billing. Heavy rock players may have to push their preamp gain harder than usual to unleash aggressive metal tones, but more and more guitarists are getting hip to the notion that hot pickups aren't always a silver bullet for high-gain playing. Far from a blunt instrument, the Sabre is a nuanced design that cuts through with articulation and finesse. G

9/10 **A versatile, classy and easy-to-wield rhythm and lead machine that justifies its premium price tag**

LIKE THIS? TRY THESE...

PRS Custom 22 **£3,459**, Suhr Pete Thorn Signature GD **£3,299**, Charvel Govan HSH Flame Signature **£3,199**

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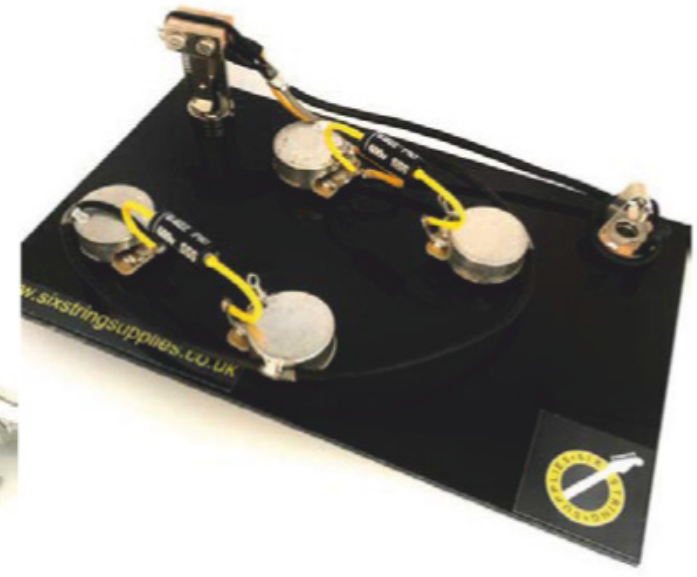

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LOWDEN
F-35 EBONY & SINKER REDWOOD

WORDS MICHAEL WATTS

The pride of Northern Irish guitar-making makes strides into new sonic territory with an exotic combination of timbers

Many describe the past three decades as a golden age of acoustic-guitar production. The fruitful period has been characterised not only by the evolution of the instrument's quality of timbre and response but by the exploration of alternative tonewoods by luthiers and players alike.

About 15 years ago, it was frightfully fashionable among custom-guitar buyers to opt for eye-catching woods. This modish movement may well have been more about looks than anything else but it led luthiers to explore some unlikely combinations for back and sides and soundboard materials.

Some of them proved to be sonic dead ends but, in the hands of skilled luthiers, the arresting duet of heavily figured ebony and striped sinker redwood – often bound in equally exotic cocobolo or snakewood – revealed an overtone-laden and expressive voice with an often astonishing capacity for sustain.

New for 2020, Lowden is now offering this fabled fusion of woods on its equally fabled 35 Series. The F model is replete with AAAA-grade black and white ebony, bound with Tasmanian blackwood and topped off, literally, with sinker redwood. It's typically understated, with Lowden's elegant sense of line and beautifully applied satin finish lending grace to a wood combination that can often be something of a retinal vuvuzela.

An established all-rounder, the F model is built around a 650mm scale length with a 402mm lower bout, and Lowden has softened the 120mm body depth with a Kevin Ryan-style forearm bevel. The choice of materials means the guitar is weighty in comparison to rosewood and mahogany instruments but it's comfortable on the lap nonetheless. If weight is an issue for you, be advised that this guitar comes with a beautifully made custom Ameritage case that weighs in at almost 6kg on its own.

The neck is standard Lowden too, with its five-piece laminated mahogany, rosewood and walnut construction topped with gold Gotoh 510 machine heads. The front and back of the graceful and sturdy headstock are overlaid in ebony, as is the guitar's heel.

Perfect harmony: the ebony back and sides boast beautiful figuring

Mix and match: the bridge is rosewood rather than ebony, but that surely enhances the sound

Through line: tasteful lines of sycamore are the ebony fingerboard's only adornment

KEY FEATURES

PRICE From £5,175 (£6,120 as reviewed) inc hard case
DESCRIPTION 6-string acoustic guitar, made in Northern Ireland
BUILD Ebony back and sides, sinker redwood soundboard, Tasmanian blackwood arm bevel, ebony fretboard with extended curve, five-piece mahogany, rosewood and walnut neck, rosewood bridge, bone nut and saddle
HARDWARE Gold Gotoh 510 tuners with ebony buttons
ELECTRONICS None (Highlander and LR Baggs systems optional)
SCALE LENGTH 25.5"/648mm
NECK WIDTH 45mm at nut, 56mm at 12th fret
NECK DEPTH 19.7mm at first fret, 25.5mm at 12th fret
STRING SPACING 38.4mm at nut, 56mm at bridge
WEIGHT 2.6kg/5.7lb
FINISH Hand-rubbed satin
LEFT-HANDERS Yes (no extra cost)
CONTACT lowdenguitars.com

It goes against this reviewer's sense of line, however, to see a heel cap end some 4mm shy of the back of the guitar, barely overlapping the back binding.

The neck itself is an absolute joy for both fingerstyle and flatpicking players, with an expertly shaped C carve and exceptional fretwork along the length of the 'board. The ebony fingerboard – unadorned aside from a tasteful line of sycamore – might go from smooth to sublime were it given another round of buffing.

The string spacing at the nut and saddle is well judged and the space between the outer strings and outside edge of the fingerboard makes it possible to complete vibrato and bends without slipping off the neck.

IN USE

Sinker redwood takes its name from the log itself, which spent more than 100 years at the bottom of a Californian river, collecting silt from the mineral-rich water. Its vitreous nature can make for an extremely fast initial response but can also make instruments exceptionally sensitive to high-frequency noises, such as string and finger squeaks. That's the case here, and it encourages the player to focus on accuracy, timbre and quality of attack.

It's characteristic of good sinker redwood tops to lend a distinct bloom to each note, meaning they require barely a touch of vibrato to bring them to a sustaining high overtone. It's akin to playing an electric guitar on the cusp of harmonic feedback.

A river runs through it: the sinker redwood soundboard features a subtle abalone rosette

Call to arms: this F-35 features a Tasmanian blackwood forearm bevel

Here it's particularly present on the wound strings. The bass response is present too but not overwhelming, which is to be expected given the slight closing off of the soundboard, an inevitable consequence of incorporating arm-bevel designs of this nature.

This F-35 sounds full and rich even when played gently with bare fingers. Although a delicate redwood soundboard would not be our first choice for heavy strumming, the clear scratchplate provides some protection and, when digging in with a pick, another of the more readily identifiable aspects of redwood instruments comes into its own: no matter how heavy your attack, the guitar's voice remains clear and precise. Rather like using a limiter in the studio, there's a point at which the output just won't increase no matter how hard you wail on the thing.

All these characteristics add up to a clear-voiced and articulate instrument that excels when you give it some room to breathe.

Wildly figured ebony has been hugely popular choice for the back and sides of luthier-built guitars for many years and its present fundamental characteristics provide the perfect backdrop for the high upper-partial content of the soundboard. The carved rosewood bridge, though an aesthetic mismatch given the abundance of ebony on this model, doubtless adds another dimension to the sound.

In standard tuning, the rich overtone content brings shimmer and sparkle to chord work and single-note lines. Things get raw as you approach the neck join but this is a new instrument and you can expect it to mellow as the wood gets used to its new job as a guitar.

Open and altered tunings are arguably the natural habitat of Lowden instruments and this F-35 immediately springs to life in DADGAD and CGDGCD, where it's especially impressive. While it's true that the distinctive Lowden sound may be most closely associated with spruce and cedar, this novel combination of ebony and sinker redwood has unlocked in the maker a bevy of beautiful new textures. G

8/10 **For guitarists looking for sophisticated and expressive instruments with a sparkling voice, this should be a strong contender**

LIKE THIS? TRY THESE...

Taran Tigra Beag **£10,000**, Fylde Oberon **£3,500**, Turnstone TG **£7,000**

RAJANI

VOD-50 HEAD

WORDS RICHARD PURVIS

This new indie amp builder is aiming for high-end sounds without using output valves. But can a hybrid really do the business for serious tonehounds?

Hybrids are everywhere these days: half-petrol, half-electric cars run the roads; smartwatches with analogue-style aesthetics bridge the chasms between old and new; and you'll even find plant-made meat between your burger buns. It stands to reason, then, that a hybrid guitar amp might work too. True, the combination of a valve preamp and solid-state output stage makes sense but this is an idea that's been largely squeezed out due to the ever-improving quality of digital modelling amps.

In this context, the Rajani VOD-50 is something of an oddity. Built one at a time in the company's London workshop, this channel-switching amp – also available as a 1x12 combo – has a four-figure price-tag and a distinct whiff of 'boutique' about it. Yet this is a hybrid, with two valves in the front half of the circuit but no big bottles at the business end. It may raise the eyebrows of purists but can it compete with the all-tube alternatives in terms of tone? Ravi Rajani certainly thinks so.

As a guitarist with a background in audio electronics, Ravi got into amp-building because, as is often the case, nothing on the market was capable of giving him the sound he heard in his head. An essential part of that sound is the combination of brilliant clean tones and pure valve overdrive, hence the two-channel design of the VOD-50. Ravi also wanted something loud enough to gig with yet easily portable and superb at low volume, which is presumably what led to that solid-state power stage.

Real spring reverb was a must too. There's a full-length three-spring tank making itself comfy in the VOD-50's bottom bunk, and a switchable 6dB gain boost on both channels. There's dual footswitch for channel-hopping and engaging the boost too, so you're not tied to the front panel's push-buttons.

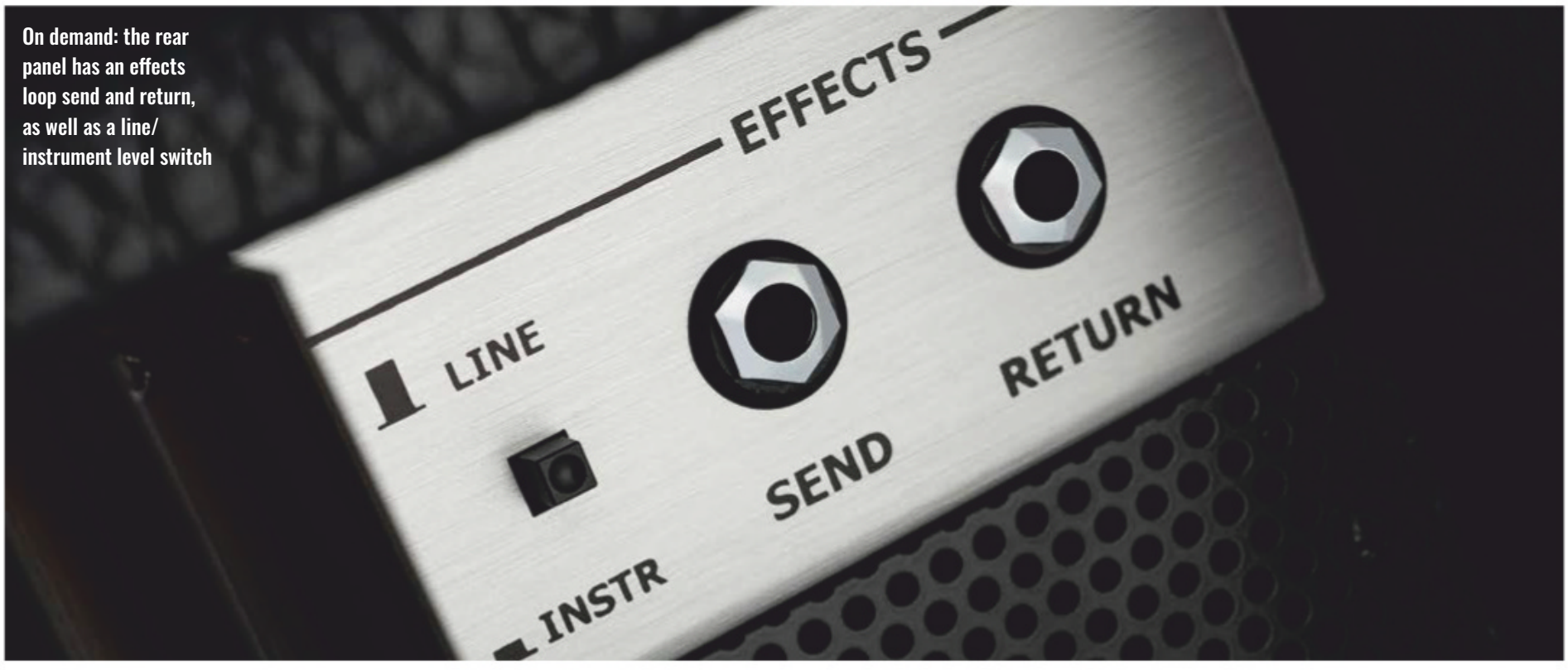
The front panel also boasts a Baxandall-type active tonestack. There's no mid control but the treble and bass have been voiced so that you can turn both down to effectively boost the mids or up high for more scooped sounds.

The back panel is dominated by a heatsink almost big enough to park a hybrid bike in, accompanied by an effects loop and a single 8-ohm speaker output. Beneath this rear panel hangs a protective metal cage but, as there are no power valves and the preamp tubes are both safely sleeved, all it's really protecting is the output transformer. But it helps with the tidy look anyway – although our review amp arrives with its cage slightly loose at one end, which we hope won't cause any rattling.

KEY FEATURES

PRICE £1,395
DESCRIPTION 50W hybrid head with two channels and onboard reverb, made in the UK
FRONT PANEL Guitar input, footswitch input (for boost and channel), boost and channel selector buttons; clean channel level, lead channel drive, and level, bass, treble, reverb, master volume; on/off switch
REAR PANEL 1x 8-ohm speaker output, effects loop send and return with line/instrument level switch, variable voltage selector
DIMENSIONS 530 x 314 x 254mm
WEIGHT 10kg/22lb
ACCESSORIES Dual footswitch and custom polyester dust cover included
CONTACT rajaniamps.com

Best foot forward: the VOD-50 comes with a footswitch for changing channels and engaging the boost



On demand: the rear panel has an effects loop send and return, as well as a line/ instrument level switch

That aside, the VOD-50 feels like a lightweight but well-made bit of kit, though it's not on the same plane as the very best and most expensive amps in its class in terms of craftsmanship and aesthetics. If its essential frumpiness bothers you, you'll be pleased to know that you can take the edge off by specifying your choice of vinyl and grille cloth, and Rajani even offers the VOD-50 as an uncovered hardwood cabinet. Mind you, humdrum stylings never seemed to trouble Alexander Dumble too much.

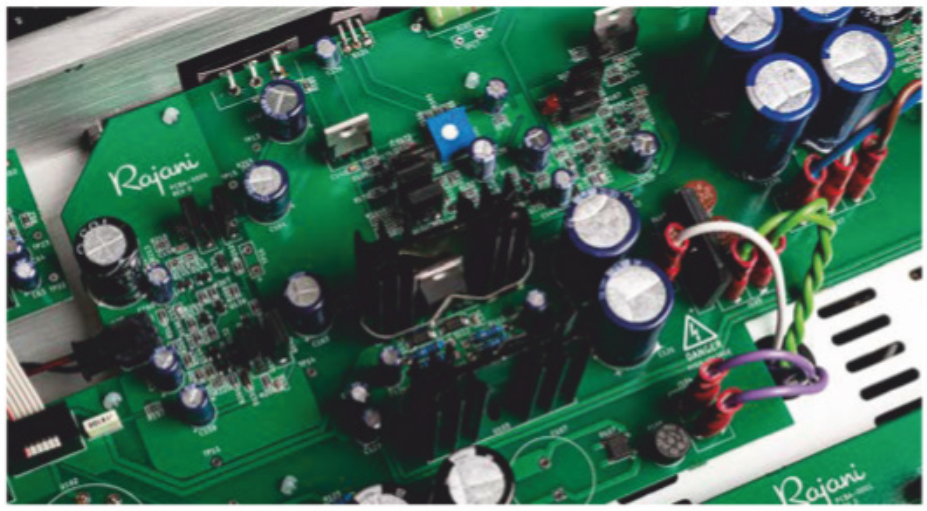
IN USE

Our first flick of the power switch is greeted with an electrical buzz that may be audible enough to cause minor distractions when playing at bedroom levels. But it doesn't get any louder when we turn up the master volume, so we'll take that as an incentive to give our eardrums a battering.

Testing begins, then, with the volume cranked for the full 50 watts and everything else set to halfway. We've heard enough hybrid and solid-state amps to know not to expect the kind of dry and lifeless response that used to characterise almost anything powered by transistors, but it's still a relief to hear those first clean chords ring out with genuine depth and sparkle.

In terms of voicing, we're broadly in tweed-style territory, with a solidity to the lower mids that nicely balances the crispness of the treble. Humbuckers push those preamp valves into pleasing breakup even with the clean channel's level set to just shy of the 12 o'clock position,

Behind glass: the hybrid circuit boasts 12AX7 and 12AU7 preamp tubes



and it's loud enough that we're content to ease back on the master volume before the neighbours start pounding on the walls. There are no worries about headroom for pedals here.

That two-knob EQ circuit offers useful adjustments to the top and bottom all the way round the dials, with plenty of mid-sculpting available if you manipulate the controls in tandem. To shake things up, though, we must flip to the lead channel.

The distortion here is fine-grained and the treble response tastefully softened, narrowing down the focus to the roaring midrange and taking us in the direction of 1980s and 1990s Marshalls, with a decent amount of gain available while remaining tight and responsive. We're told that the power amp has an integrated compressor to tame the biggest transients and prevent unmusical clipping but it doesn't do anything that we can hear – which is, of course, as it should be. Oh, and the cage doesn't rattle, even with the head at full blast.

If you want more bite, it's a simple matter of stomping on the boost. This doesn't exactly empty a can of petrol onto rock's moderate flames, but it does make a difference. This cheeky boost can also come in handy on the clean channel, where it can help you cross the line into crunch or just replace some of the edge inevitably lost when you turn the master volume down low.

The reverb is big, warm and almost entirely free of springy judder. However, unfortunately, in the case of our review amp at least, it's also rather persistent, hanging around as a low-level background fog even when turned down to zero – and until we can't stand it any more and unplug the tank. For paying customers who encounter the same problem, a more satisfying solution might be to make use of Rajani's extremely reassuring 30-year warranty and have it fixed.

Minor flaws aside, this is a promising debut for a new British builder. Tone-wise the VOD-50 is a solid all-rounder, and it does more than enough to prove there's still life in the hybrid theory.

8/10 **An extremely versatile UK-made amp with a high tone-to-weight ratio**

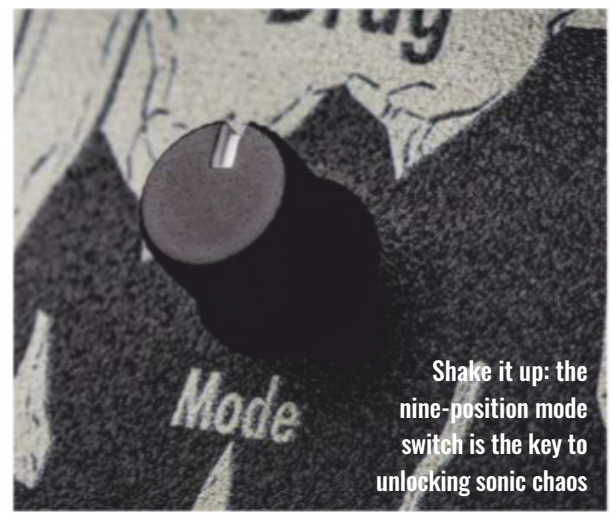
LIKE THIS? TRY THESE...

Hughes & Kettner Black Spirit 200 Head **£699**, YellowRock SL30 Head **£695**, Laney LV300H **£298**

9V
Length
Diffuse
Dampen
Reflect
Drag
Mix
Mode
EXP
Afterneath
EarthQuakerDevices

Shock tactics: the diffuse knob changes the spread of the reverb for extreme sound-sculpting

High magnitude: plug in an expression pedal to maximise the Afterneath's potential



Shake it up: the nine-position mode switch is the key to unlocking sonic chaos

KEY FEATURES

PRICE £199
DESCRIPTION Digital reverb pedal, made in the USA
CONTROLS Length, diffuse, dampen, reflect, drag, mix, 9-way rotary mode switch for drag
FEATURES Flexi-Switch latching or non-latching footswitch, TRS expression pedal input for drag, buffered bypass with switchable trails, powered by 9-volt mains supply only (not included)
DIMENSIONS 121 x 64 x 57mm
CONTACT audiodistributiongroup.com, earthquakerdevices.com

EARTHQUAKER DEVICES
AFTERNEATH V3

WORDS RICHARD PURVIS

The third version of this powerful little ambient soundscape generator adds a couple of interesting new features to the reverberating mix

Be warned: throughout this review, you'll come across such slippery adjectives as 'ethereal', 'celestial' and 'otherworldly'. You'll also read terms such as 'woozy', 'glitchy' and 'arpeggiated'. As you've probably guessed already, version three of the EarthQuaker Devices Afterneath can do much more than simply immerse your guitar tone in dreamy digital reverb.

The Afterneath has been around for five years now, and its place in the modern pantheon of trippy reverb pedals is secure, but this latest version isn't content with pure atmospherics. The inclusion of a rotary mode switch – plus an input for an external expression pedal – allows the unit to create dynamic effects capable of jolting listeners out of the blissed-out hypnosis you've put them under like a steel toe-cap to the shin.

Firstly though, let's go through the basics. This is still a reverb pedal – except it isn't. EarthQuaker makes no secret of the fact that these space-age sounds are made up of lots of delays blended together, and if you set the diffuse control low, you'll actually hear the repeats tumbling over each other like a multi-head tape echo.

The other controls cover more familiar territory: length governs the decay time, dampen is treble filtering, reflect is density, drag is delay time, and mix does exactly what it says on the tin. That should be everything you need to get otherworldly, ethereal and celestial. Well, we did warn you.

But here's the new bit. With most delay pedals, if you change the time setting while playing, you also change the pitch of the repeats – and remember, this reverb pedal is really a delay in disguise. So it lets you use a standard expression pedal to adjust the drag control in mid-flight, while the mode switch changes the way the pitch moves up and down as you do so. Strap yourself in – this could get weird.

IN USE

Rather than taking a multi-mode approach, the Afterneath gives you one glorious sound and lets you tweak it in pretty much every direction possible, from softly shimmering ambiences to self-oscillating drone swells. You could force it to do 'normal' reverbs, sure, but that would be rather like signing Mo Salah and using him as a ballboy.

There's a generous pre-delay before the reverb swooshes in with a lushness and clarity for creating textural washes that leave ample room for layering melodies over the top. Background hiss can be intrusive with the wet mix past halfway but you probably won't need to run it that high anyway.

And then, an expression pedal turns up. With settings on the low side, what you'll hear when you flex your ankle is a peculiar pitch-shifting noise in the background. With the reverb more prominent, this effect becomes downright disorientating. Three of the nine modes offer a continuous note sweep, while the other six break it up into discrete notes at various intervals; this can sound like a bleepy synth arpeggiator or like a dog chewing enthusiastically on a DigiTech Whammy. Either way, it's definitely unconventional.

How frequently will people use these oddball effects? Not very. But it's great to have them, all the same. Consider them an exotic side dish to a reverb casserole that remains as tasty as it's ever been.

8/10 **Top soundscaping potential with some synth tricks thrown in – as long as you have an expression pedal**

LIKE THIS? TRY THESE...

Old Blood Noise Endeavors Dark Star **£199**, Caroline Meteore **£199**, KMA Machines Cirrus **£169**

PIGTRONIX
INFINITY 2

WORDS RICHARD PURVIS

Don't let the Infinity 2's stripped-back aesthetic fool you – there's a lot going on beneath the brushed-metal surface of this dual looper

Has someone at Pigtronix been on a yoga retreat? With the compact and classy shape of this Infinity follow-up, the looper seems to have shed its earthly trappings and attained something close to minimalist-design nirvana.

Coming in at less than half the price of 2015's Infinity, this new model is a simplified alternative to the knobs, buttons and lights galore of its comparatively gaudy big brother. But that's not to say it doesn't have some clever tricks in its locker: octave jumps, stutter effects, timed switching from one loop to another – it's amazing what you can do with two footswitches and a mode button these days.

TC Electronic's Ditto, launched in 2013, proved once and for all that fantastic loopers don't have to be fiddly. Its basic model sports only a single knob – and nobody even uses that. By those standards, then, Infinity 2 is positively complex. But its stage-friendly principles remain: simply press to record, press again to end the loop, and press again to start overdubbing.

IN USE

We're not going to talk much about sound quality here – it's a looper sampling at 48kHz, and through an amplifier, the loops sound the same as whatever you make them with. What's crucial is the effectiveness and user-friendliness of the extra features.

Looping with the Infinity 2 is simple – and it's just as easy to record two separate loops, then flip between the two. Handily, the unit makes that transition for you at the end of the currently playing loop, so you don't have to worry about well-timed stomps.

18+

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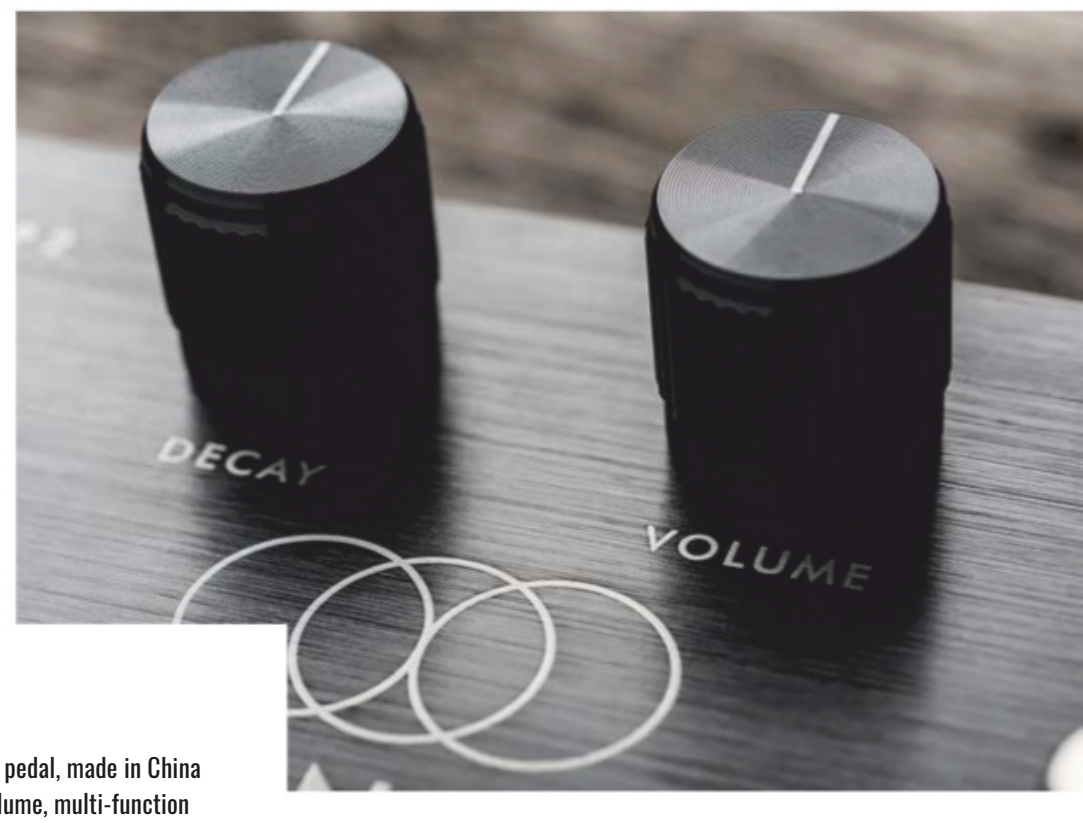
Two's company: the looper has stereo I/Os for flexible connectivity

Infinity and beyond: new modes mean this unit can do more than simple looping



KEY FEATURES

PRICE £229
DESCRIPTION Dual-looper pedal, made in China
CONTROLS Decay time, volume, multi-function footswitches for Loops 1 and 2, mode switch
FEATURES Buffered bypass, stereo I/Os, remote footswitch input, micro-USB port for firmware updates, powered by 9-volt mains supply only (not included)
DIMENSIONS 115 x 71 x 54mm
CONTACT pigtronix.com, jhs.co.uk

More helpful still is that, while playing one loop, you're able to delete the other so you can begin building the next section of your song. In theory, with Infinity 2 you could construct a 21st-century *Bohemian Rhapsody* on the fly. If you must...

With the decay control, you can set loops to fade out after a few seconds or play on forever. More interesting is the mode button, which opens up the other functions of the Loop 2 footswitch when you're only using Loop 1.

The Undo mode is self-explanatory, letting you erase your mistakes almost as quickly as you can make them. Enable the Stop mode, meanwhile, and you can kill a loop immediately, at the end of the current cycle or with a fade-out.

The Once mode sees loops played once but also allows you to create rhythmic false starts by jabbing away at the switch. It can be entertaining but, in terms of sheer daftness, it's got nothing on Octave mode.

With this, you can record a loop, slow it down by an octave and play a lead line over the top so that, when you return to normal pitch, you'll sound like some sort of shredding chipmunk .

There's almost infinite fun to be had with Infinity 2. Some of its functions are genuinely inspiring, others are perhaps more useful in demo videos than they are in the real world. But even a whiff of frivolousness can't prevent this from being a smart and well thought-out looper.

8/10 **It looks simple but this is a deceptively well-equipped looping toolbox**

LIKE THIS? TRY THESE...

Electro-Harmonix 22500 **£225**, TC Electronic Ditto X4 **£170**, Boss RC-30 **£169**

U.S. PAT.
289237
TV JONES
BRIAN SETZER

FILTER'TRON SHOOTOUT

WORDS HUW PRICE

There was a period when Filter'Tron pickups were found only in Gretsch guitars but these days they appear in everything from Cabronita Telecasters to boutique offsets and plenty more besides. Here, we take a look at the aftermarket options and see how they stack up with vintage and modern Gretsch pickups, as well as popular units from the likes of TV Jones

In the hands of players as diverse as Eddie Cochran, Brian Setzer, George Harrison, Malcolm Young, Pete Townshend, and John Squire, the Filter'Tron has shown that it can handle everything from 1950s rockabilly and hard rock to indie jangle. They're not as powerful as Gibson-style humbuckers and P-90s, and not as bright as most Fender pickups, but they fuse hazy clarity, twang and midrange growl in a way that's endlessly alluring.

For a long time, if you wanted to buy a set of Filter'Trons without a Gretsch guitar attached to them, TV Jones was the only game in town, with founder Thomas Vincent Jones having dug deeper into the work of Ray Butts and the history of these pickups than anybody else. However, that hasn't stopped almost every other pickup brand throwing their hats into the ring too.

With so many Filter'Tron clones to choose from, it's time for a buyer's guide to the best on the market. For testing purposes, we're using a modern Gretsch G6118T-135 135th Anniversary model loaded with its modern High Sensitive Filter'Trons, and a 1960 Anniversary/6120 conversion with a set of vintage units.

People with vintage Gretsch guitars are not likely to ditch their original pickups, so our focus is how the aftermarket replacements compare both with current Gretsch pickups and the vintage benchmark. We'll be keeping the G6118T stock throughout and swapping the pickups in the 6120 conversion.

GRETSCH HIGH SENSITIVE FILTER'TRON

Like our 6120 conversion, the G6118T Anniversary has trestle bracing, a Rocking Bar bridge and a Bigsby, and they sound similar unplugged. Gretsch introduced this pickup with an alnico V magnet in about 2001, replacing the earlier ceramic magnet units found on reissue models during the previous decade. The pole screws were changed to a more vintage style too, the ceramic versions having domed screw heads.

IN USE

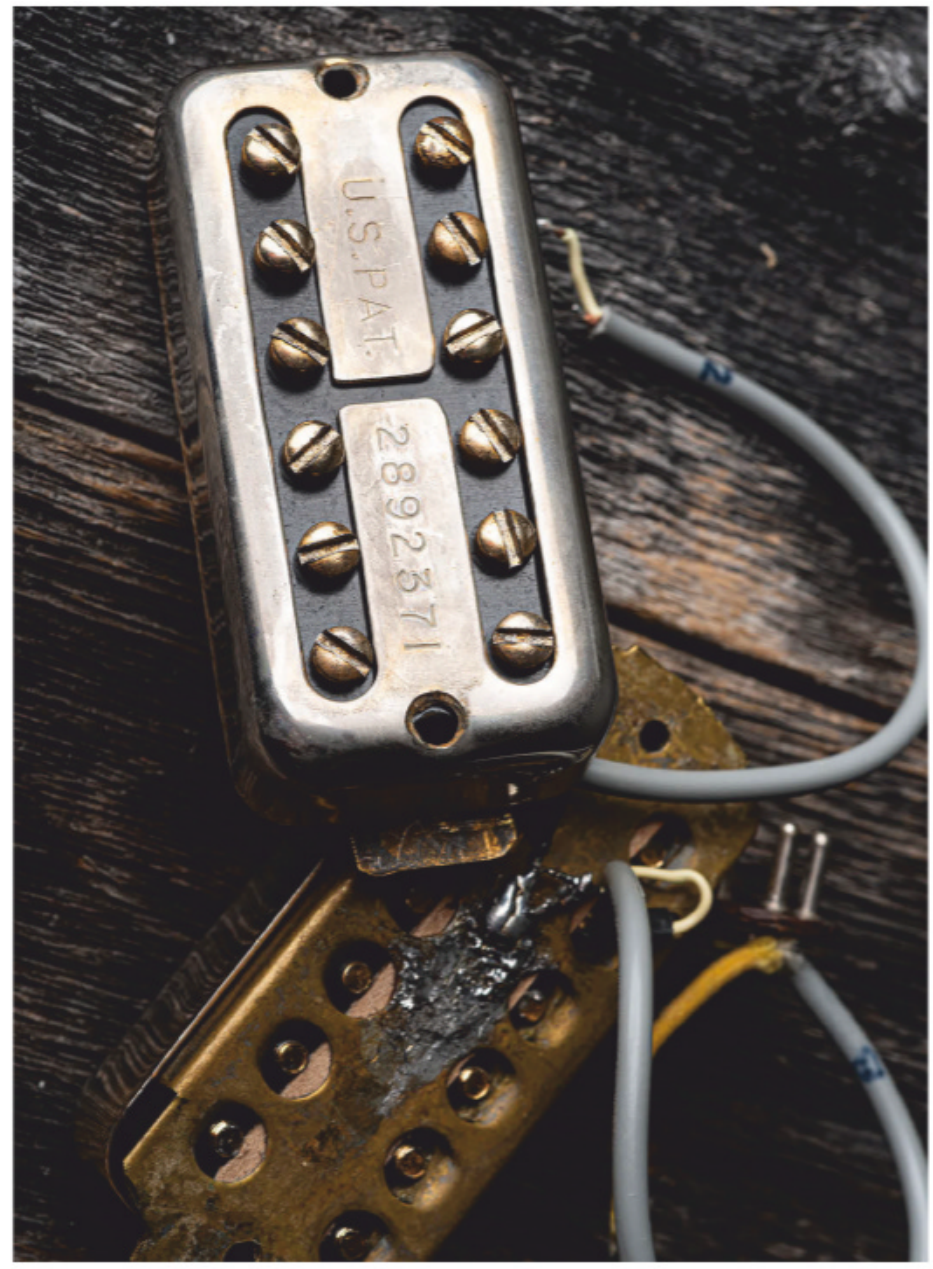
These units have a thickness in the midrange that ramps up the power at the expense of a little clarity and twang. The bridge has more of the nasal upper-midrange character that we associate with Gibson-style humbuckers, while the neck has a smooth fullness that can sound a touch woolly in the lows if you aren't careful.

Both pickups have a slightly compressed quality and, while there are plenty of upper mids to produce that classic gritty Filter'Tron growl, the 'air' frequencies of unpotted Filter'Trons are missing. These are a fine compromise for players who want to reap some power and aggression from their guitar but retain much of the classic Filter'Tron tone.

KEY FEATURES

PRICE £61.99 each
DESCRIPTION Humbucking pickups, made in Asia
FEATURES Alnico V magnets, potted
DC RESISTANCE 4.58k (bridge), 3.93k (neck)
CONTACT gretschguitars.com

8/10 **Priced competitively for Filter'Tron tone with added grit, aggression and player-friendly compression**



VINTAGE GRETSCH FILTER'TRON

Compared to 1950s and 1960s Gibson and Fender pickups, vintage Filter'Trons aren't particularly expensive. In part, this can be attributed to the fact that, over its first three decades of operation, Gretsch never deviated from Ray Butts' design. There's no narrow 'golden era' as such, and there's no way of dating them. The vintage units featured here were bought on Reverb, appear to be from the 1960s, and cost a shade more than £400.

IN USE

These pickups have a slightly lower output than the High Sensitives, and are far less gritty in the upper mids. Not only that, they're noticeably smoother too, and plain strings played high up the neck combine a full solidity with a hint of wiriness.

There's midrange growl in abundance but the bridge has a clucky quack that hints at Telecaster tone, while the neck has a mellower roundness that's equally suited to clean jazz and overdriven blues. Unsurprisingly, these nail the tones you hear on records by the likes of Neil Young, The Who and even Chet Atkins.

KEY FEATURES

PRICE £225-£300 each approx (used)
DESCRIPTION Humbucking pickups, made in the USA
FEATURES 42 AWG heavy formvar magnet wire, 1/4" alnico V magnet, unpotted
DC RESISTANCE 4.12k (bridge), 4.1k (neck)

9/10 **Although there are fabulous modern alternatives, Ray Butts' design is still the benchmark**

Guitar.com EDITOR'S CHOICE

MOJO PICKUPS MOJOTRON

It's clear that enormous effort has gone into making these UK-built units as vintage-correct as possible. The long baseplate, loose cover, full thickness alnico V magnet, hook-up wire and pole screws are all bang-on. These were left unpotted at our request but wax potting is standard.

They're easy to mount on vintage-spec Gretsch guitars and loose covers allow you to shim up the coils just as Gretsch did. Gretsch neck angles vary, so this set is more widely compatible than some.

IN USE

Mojo's attention to detail has paid off; this set sounds remarkably similar to our vintage Filter'Trons. They're bright and have plenty of chime and growl without being too hot. The bridge provides wiry quack, the neck is mellow and full, and the in-between position sounds phasey, compressed and authentic.

The Mojos are brighter than the vintage set and single notes on the plain strings don't have quite as much body, but they do have more chime and a touch of extra clarity. If you're looking for vintage Gretsch tone, this set will get you there without having to pay import duties.

KEY FEATURES

PRICE £100 each
DESCRIPTION Humbucking pickups, made in the UK
FEATURES 42 AWG magnet wire, 1/4" alnico V magnet, unpotted (potting available on request)
DC RESISTANCE 5.15k (bridge), 4.02k (neck)
CONTACT mojopickups.co.uk

9/10 **Up there with TV Jones' Ray Butts units as the most authentic in construction and tone, these are highly recommended**

HOUSE OF TONE FILTERHOUSE

House Of Tone uses 43 AWG polyurethane-coated wire with extra thick alnico V magnets just like the originals. Nickel silver baseplates are used rather than the original brass, for added clarity, with wider string spacing on the bridge than the neck.

As with the originals, a spacer is placed under the bridge pickup's magnet to raise its height. They're available unpotted, lightly potted or fully wax-potted, and with two or four conductor wires, hotter coils and any magnet type. Check the website for cover options.

IN USE

Although the parts aren't as vintage-correct as the Mojos, this is another old-school-sounding set. But rather than emphasise the growly and chimey aspects of the Filter'Tron sound, the Filterhouse set focuses on the mellower and woodier end of the spectrum. Their output levels are also the lowest in the group.

The upside is that the response is smooth and refined, and the tone has more of that vintage Filter'Tron body. These are perhaps not the best choice for Townshend and Young tones but if you're more interested in Chet pickin' and jazzier stylings, these pickups are absolutely superb.

KEY FEATURES

PRICE £90 each
DESCRIPTION Humbucking pickups, made in the UK
FEATURES 43 AWG magnet wire, 1/4" alnico V magnet, unpotted (potting available on request)
DC RESISTANCE 3.9k (bridge), 3.47k (neck)
CONTACT houseoftonepickups.com

8/10 **With mellower tones and a lowish output, this refined set is better suited to cleaner styles and fingerpicking than the rockier stuff**

Guitar EDITOR'S CHOICE

TV JONES TV CLASSIC & TV CLASSIC PLUS

These are the pickups that established TV Jones' reputation. They were once reputed to be authentic vintage Filter'Tron replicas but with non-authentic hardware, revised pole spacing and Jones' preference for wax potting, that's not entirely the case. The Classic Plus is a hotter version of the regular bridge Classic. Here, we're testing all three.

IN USE

After playing these for a few seconds, it's clear why TV Classics were the making of TV Jones. Together, the Classics combine elements of both the vintage Filter'Trons and the High Sensitive units. They're bright, clear, sensationally balanced and generate a thrilling combination of growl and twang. The bridge pickup easily overdrives an amp but without the edge and grit present in the High Sensitives. The neck sounds wide open and clear, with fabulous bass depth and no wooliness.

Switching over to the Classic Plus in the bridge delivers a tone that's louder and more compressed but equally bright and clear. In fact, all three seem to be brighter and clearer versions of the originals, only with added punch and aggression.

Rather than being slavish replicas, these are more like idealised Filter'Trons updated for modern ears to provide great Gretsch tones with minimum effort.

KEY FEATURES

PRICE $135 each (Classic), $138 (Classic Plus)
DESCRIPTION Humbucking pickups, made in the USA
FEATURES 1/4" alnico V magnet, wax potted
DC RESISTANCE 4.62k (bridge), 3.97k (neck), 7.61k (Classic Plus)
CONTACT tvjones.com

9/10 **These units still rank among the best and can now be regarded as classics in their own right**

TV JONES BRIAN SETZER SIGNATURE

Longtime Brian Setzer fans will know that his approach to his gear and tone has evolved over the decades. He famously said that it took about 40 years to get his vintage 6120s roadworthy, and although the first Setzer Signature models sported TV Classics, he and Tom eventually collaborated to create the Brian Setzer Signature pickup set.

These differ from TV Classics thanks to mismatched coils, pole screws with more steel content, and wider pole spacing on the bridge pickup. Our set is also unpotted and the bridge is wound a little hotter than the vintage spec but less than a TV Classic Plus.

IN USE

There are vintage elements to the tone but this is a pickup set designed to cut through in a live context. As such, they're quite bright and the absence of wax potting extends the upper treble.

The bridge is punchy and growly, and competes with the High Sensitive and Classic Plus for output. But compared to the latter, there's a lower-mid scoop that shifts the tone to a more greasy brrrang while sounding a touch thinner.

The neck unit is fuller and has more of a vintage frequency balance while also sounding bright and clear. Both units balance nicely and the in-between setting is quintessentially Gretsch. These are great fun and overdrive amps without any grittiness but we feel they're voiced more for live work than studios and home playing.

KEY FEATURES

PRICE $158 each (chrome and nickel options $153)
DESCRIPTION Humbucking pickups, made in the USA
FEATURES 1/4" alnico V magnet, unpotted
DC RESISTANCE 6.14k (bridge), 4.41k (neck)
CONTACT tvjones.com

8/10 **The obvious choice if you're chasing later Setzer tone or want a clearer, brighter and louder twist on vintage Filter'Trons**

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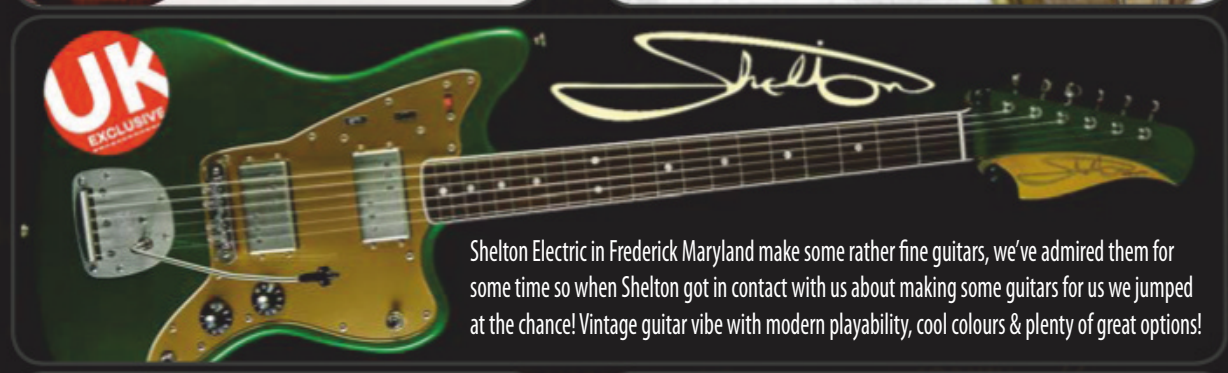

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Shelton Electric in Frederick Maryland make some rather fine guitars, we've admired them for some time so when Shelton got in contact with us about making some guitars for us we jumped at the chance! Vintage guitar vibe with modern playability, cool colours & plenty of great options!

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SETTING UP STRAIGHT

To get the best from Filter'Trons, you need to set them up properly and ensure that the accompanying electronic components are present and correct. Here's how to do it

Unlike PAF-style humbuckers, not all Filter'Trons are created equal and dimensions and mounts vary. Before buying retrofit Filter'Tron pickups, check the heights, footprint and mounting method required with the manufacturer and measure your guitar accordingly.

The arrival of Filter'Trons coincided with Gretsch abandoning a conventional tone control and introducing a tone switch. Given its poorly chosen capacitor values, most vintage Gretsch players keep the tone switch in the bypass position.

Consequently, the inherent treble bleed of regular tone controls doesn't apply. Many modern Gretsch guitars have tone switches with better caps or a no-load tone control. You'll need one or the other if you want authentic vintage Gretsch tone.

Controls for Gretsch guitars with two Filter'Trons generally had individual volumes, as well as a master volume. The pots are 500k units but the way they're wired means the amplifier 'sees' 250k.

Filter'Trons are bright and, with a single 500k volume control, they can sound too shrill. If you're installing Filter'Trons in a Les Paul or a Cabronita Tele, combine them with no-load tone pots and 250k volume pots for the full Filter'Tron experience.

Filter'Trons are extremely sensitive to height settings. TV Jones recommends 5/32" (4mm) between the top of the cover and the bottom of the E strings on the bridge pickup. For the neck, it's between 3/16" (4.7mm) and 7/32" (5.55mm) on the bass side of the neck and 3/16" (4.7mm) on the treble side.

As a rule, things get louder and brighter as coils move closer to the strings, and warmer and mellower as they get further away. Go too far either way and the tone can be harsh or dull.

Setting height with suspended Filter'Trons is easy but traditionally mounted Filter'Trons are screwed to the top and sit inside routed recesses. TV Jones sells foam spacers that allow some movement. Alternatively, try wood shims under the ends of the pickups. You could use the foam to determine the optimum height before calculating the thickness required for the shims.

If the bridge pickup needs excessive shimming, try placing a thin rectangle of plastic or wood veneer between the bottom of the magnet and the base plate. That's how Gretsch did things but you can only do it on Filter'Trons with loose covers.

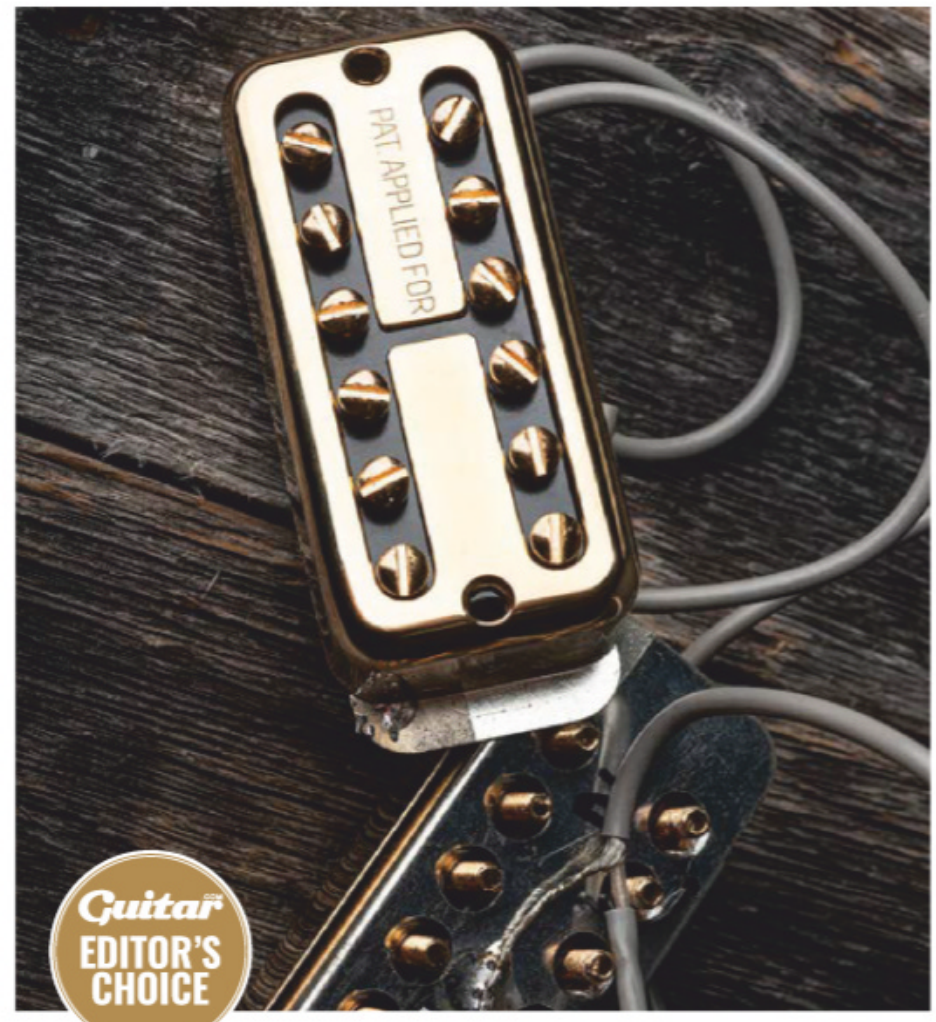
Before height setting, tighten the 24 pole screws all the way down, then undo each by half a turn. This allows for upwards and downwards movement. TV Jones provides guidance on screw-height settings but results vary depending on string gauge and bridge radius.

Set a neutral clean amp tone, select the bridge pickup, form an A major barre chord at the 5th fret and pick through the strings evenly. Determine which strings sound balanced and which are comparatively loud or quiet. To increase the volume of a string, raise its corresponding pair of pole screws, and to reduce output, lower the screws.

Use your ears and be aware that the strings and pole screws don't always line up. Vintage-style Filter'Trons had 1.9-inch screw spacing in the bridge and neck. Consequently, the screw heights may look wonky once you've dialled in a balanced response.

Here, the only sets with vintage spacing are the High Sensitives, Ray Butts Ful-Fidelities and Mojotrons. All the others have two-inch bridge spacing, with the Sparkle'Trons measuring 2.2 and 2.1 inches.

Setting pole-screw height is the key to achieving the balanced Filter'Tron growl. Repeat the procedure for the neck pickup and, once you can switch between the two with a consistent level and even balance, the in-between setting will sound fantastic.



TV JONES RAY BUTTS FUL-FIDELITY FILTER'TRON

Our current Maker's Mark series began with the background of these units but, suffice to say, Ray Butts designed and made Filter'Tron pickups before signing the manufacturing over to Gretsch, and his original name for his pickup was the Ful-Fidelity. Having been granted custody of Ray's archives and parts, Tom has recreated the original Ray Butts design as close to the original specifications as possible.

Early bridge Filter'Trons had taller covers, and prospective customers must account for the height – approximately 25.2mm with a shim and 22.5mm without – to ensure these will fit their guitar without extra routing to achieve the necessary clearance. The pole screws also protrude beyond the baseplate by about 7mm.

IN USE

Given their history and spec, it's no surprise that the Ray Butts pickups sound extraordinarily close to our vintage Filter'Trons. These have a touch less weight in the lows, especially on the neck pickup, and they're not quite as gutsy, but they do have marginally higher fidelity.

The sound is clearer and less gritty than the vintage units – the Ful-Fidelities are extremely refined and capture detail superbly. The key difference is that you don't get the slight blurriness in the upper mids that has become associated with classic Filter'Tron tone. Overall, they're arguably more practical but slightly less characterful, and that's an observation rather than a criticism.

KEY FEATURES

PRICE $175 each
DESCRIPTION Humbucking pickups, made in the USA
FEATURES 42 AWG magnet wire, 1/4" alnico V magnet, unpotted
DC RESISTANCE 4.25k (bridge), 3.77k (neck)
CONTACT tvjones.com

9/10 **These authentic vintage-style Filter'Trons deliver impressive clarity and are well worth the money**

SUNBEAR BEARTRON

Sunbear Pickups is a relatively new UK pickup manufacturer that has quietly been garnering a reputation for fine-sounding products. These units come with full-sized alnico V magnets and are wound a hair hotter than the vintage spec at 5k and 4.4k ohms. The magnet wire is heavy formvar and we requested unpotted coils.

IN USE

The Sunbears have bucketloads of Filter'Tron flavour and absolutely nail the phasey midrange character. The bridge has a wonderfully vintage quack and the neck has a pleasing sheen with no lack of clarity whatsoever.

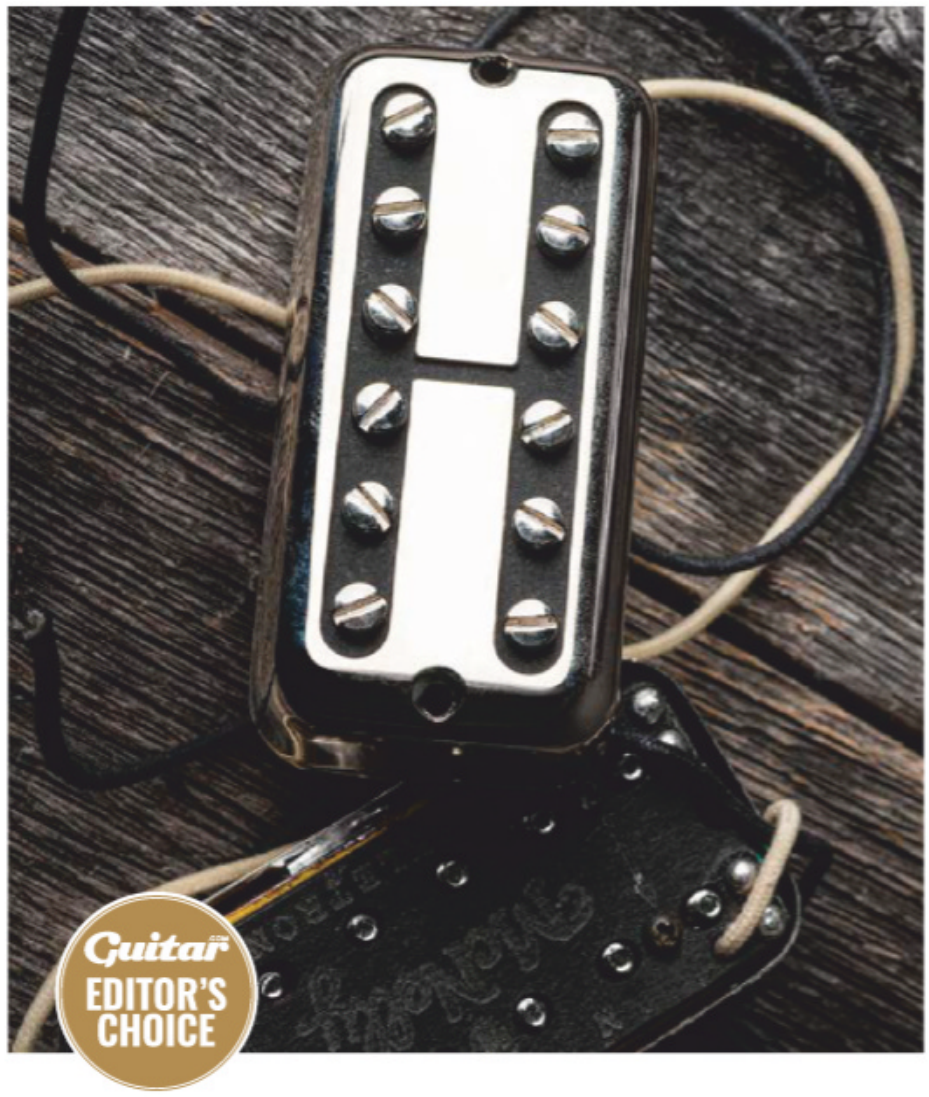
Output levels are strong but they're not too powerful, and there's no sense that compromises have been made to achieve such a healthy output. This refined set is warmer and smoother than most but doesn't have quite as much chime or the Telecaster-type wiriness of some of its competitors.

There's a full and almost plummy character to the low mids and the output level, combined with the non-scooped midrange and total absence of grit, would make these ideal for jazzy cleans and overdriven rock alike.

KEY FEATURES

PRICE £120 each
DESCRIPTION Humbucking pickups, made in the UK
FEATURES 1/4" alnico V magnet, unpotted (potting available on request)
DC RESISTANCE 5.25k (bridge), 4.27k (neck)
CONTACT sunbearpickups.com

8/10 **A high-quality Filter'Tron replica with fuller and warmer mids and a touch of extra output**



MCNELLY SPARKLETRON

These may look like vintage Filter'Trons from the outside, but with vulcanised fibreboard flats and widened pole spacing, they're anything but. This Canadian-made set has full-sized custom-made alnico V magnets and recessed polepieces.

IN USE

We've reviewed McNelly Sparkletrons before and, despite being wowed, we felt the wax potting inhibited the upper treble. This time, they've been left unpotted at our request, and we find them even more impressive. Considering how much they deviate from vintage Filter'Trons in component parts, it's astonishing how much they sound like both the vintage Filter'Trons and the TV Jones Ray Butts pickups.

The output is a little lower on the bridge but the midrange voicing and overall balance is almost identical. The Sparkle'Trons have a lively and non-compressed response and feel particularly sensitive to playing dynamics and all the subtle details of pick and finger attack.

The short fibreboard bases make them more difficult to mount on vintage-style Gretsch guitars but it can be done. This set is hard to beat in a Cabronita Telecaster too.

KEY FEATURES

PRICE From £139.99 each
DESCRIPTION Humbucking pickups, made in Canada
FEATURES 1/4" alnico V magnet, unpotted (potting available on request)
DC RESISTANCE 5.25k (bridge), 4.09k (neck)
CONTACT homeoftone.co.uk, mcnellypickups.com

9/10 **These are longtime favourites. Although they're not the most vintage correct anatomically, sonically they hold their own with the very best**

LIKE THIS? TRY THESE...

Other pickup manufacturers offering their spin on Filter'Tron pickups include Lollar (lollarguitars.com), Seymour Duncan (seymourduncan.com) and Monty's Guitars (montysguitars.com)

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THE RUNDOWN

DISTORTION PEDALS

WORDS CILLIAN BREATHNACH

Whether you're rocking alone or with friends, it's always fun to add a sprinkling of filth to proceedings – and these high-gain stompboxes have dirt in abundance

JHS PG-14
£195

1 A collaboration between JHS and Paul Gilbert, this is a FET-based distortion pedal that packs in tones from mild overdrive to on-the-brink excess. But this isn't merely a Tube Screamer for shredding. Thanks to an active mid-frequency preamp and a push knob that kicks in amp break-up characteristics, there's a lot of dirt to be dug up with the PG-14.

TC ELECTRONIC DARK MATTER
£45

2 This Plexi-inspired distortion box can transport you from the raw and unadulterated raunch of Jimi Hendrix to the sludgy tar-slathered stoner riffs of Electric Wizard and beyond. The voice switch toggles between two modes, delivering either a vintage flavour or a more modern sound with extra low-end punch, while still retaining articulation.

EARTHQUAKER DEVICES ACAPULCO GOLD
£135

3 It may be the ultimate embodiment of the one-trick pony but when your pony is a supercharged power-amp distortion based on a cranked Sunn Model T, its singular focus doesn't seem all that lacking. The ridiculously oversized knob sets the output level and seems to offer a clear-cut suggestion: turn this thing up loud.

FENDER MTG:LA TUBE DISTORTION
£159

5 This feature-packed dirtbox comes loaded with a genuine US-made, NOS 6205 preamp tube and has an onboard footswitchable boost as well as flexible equalisation and a tight control to set the low-end to taste.

BOSS DS-1
£59

6 Favoured by everyone from Vai to Cobain, the humble DS-1 remains a popular choice and is the top-selling Boss compact pedal of all time. With its bold distortion tone and natural compression, it's a stone-cold classic for a reason.

REDBEARD EFFECTS RED MIST MK IV
£189

7 Designed as the ultimate distortion pedal for Redbeard main man Mikey Demus, this unit offers gain for days and produces heavy distorted tones to suit a wide variety of genres. Twist the mids control to unleash lethal levels of sonic fury.

1981 INVENTIONS DRV
$250

4 What started out as a twist on the 1985 whiteface RAT evolved over four years to become something altogether different. It's one of the most versatile and sensational-sounding distortion pedals we've heard in years, and its minimalist design and limited-edition colourways offer a pleasant counterpoint to the market's typically moody aesthetic.

KEELEY FILAMENTS
£179

8 This is a heavy distortion pedal with versatile tone-shaping. With plenty of EQ control on board and three switchable modes to add boost, brightness and crunch, it's an absolute dream for tone-tweakers.

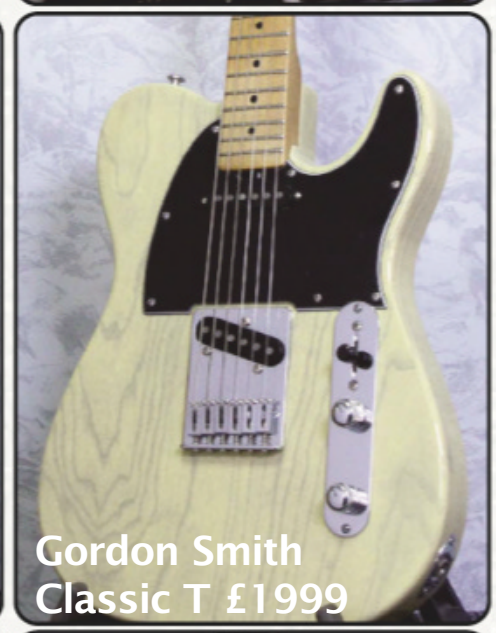
Forsyth
Est 1857

Highlights Of The Month

Atkin "The '38 Advanced" £3095

Auden Julia Neo £899

Eastman DT30 OM £2195


Gordon Smith Classic T £1999

Martin T1K tenor ukulele £579

Risa Soprano electric ukulele £395

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Amit R Sadras (left) with business partner Tal Macmull

INDUSTRY INSIDER

MACMULL CUSTOM GUITARS

INTERVIEW SAM ROBERTS

We speak to owner Amit R Sadras about how this Jerusalem-based guitar brand turned a passion project into a viable business by focusing on timeless designs

How did you get into guitar?

"Our story began when Tal and I met as kids. We've been friends ever since. We built our first two guitars in 2004, when we were 16. Tal was always that kid who could naturally fix anything. He could find technical errors and, despite having no formal experience, come up with solutions quickly. He still isn't afraid of turning a vision into a reality on the workbench, which is often a difficult thing to do.

"We were music-obsessed teenagers back then. We couldn't collectively afford to buy a guitar good enough to meet our standards but thankfully we shared a passion and a deep mutual ambition. Tal had technical experience and I had playing experience. Just like that, the seedlings of Macmull guitars were planted.

"We were getting into it deep at a time when it was difficult to find literature and information. YouTube wasn't even a thing yet. We had no choice but to work hard and learn through blood sweat and tears. We're self-taught, which gave us the drive to get things done."

When did you realise you had a viable business?

"In about 2010, after spending a few years completing our mandatory army service, we started taking our profession more seriously. I was into the worlds of guitar and sound, and had my own recording studio at the time. We were always involved in each other's work. I helped Tal in the workshop and he helped me in the studio. At that point, our business was local and so were our clients. After many years of guitar and sound research, we had the dream of doing something that hadn't been done before. We wanted to fix the issues we had in the studio and workshop, and discover how to bring back that vintage sound to the forefront of the modern guitar building. We put all of our passion, knowledge and experience together and Macmull Custom Guitars was born. Sharon Levi came into our lives in a very dramatic way. He's our in-house devil's advocate, and he's unafraid to be constructively critical where necessary. Sharon became a mentor to me and Tal, and he was a big influence at Macmull thanks to his genuine musician's perspective."

Starting a small business is tough. Did you get any help or support in the early days?

"The only investment was self-investment. We've invested our hearts and souls, every minute of every day. No investors or government grants. We've had a few offers from business investors and partnerships but we tend to refuse them because we don't want to sell Macmull's identity."

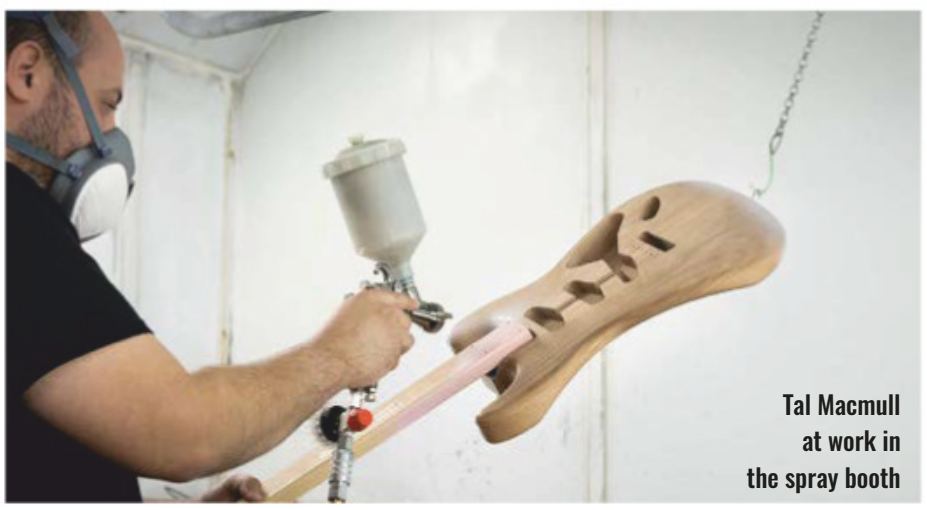
At what point did you feel like you had really nailed your branding?

"There are so many great vintage-style builders out there, and we all share the same outlines and curves. We had to come up with something that will represent our philosophy of simplicity. Our original headstock was testament to that and became the symbol of Macmull guitars in terms of branding."

How did you come up with your best-selling product?

"Our Heartbreaker series. Our approach to sound is bright and unique, which

Macmull's Heartbreaker Custom impressed us back in 2019



Tal Macmull at work in the spray booth

makes our guitars a natural choice among many players. We're coming at it from the perspective of pro musicians and want to make our instruments for pro users. We believe that the spiritual bond between the musician and their instrument is crucial, so we think about how we can elevate that inspiring connection."

What's your proudest moment as a maker?

"We're proud every time a client receives a guitar and writes to us expressing how it's changed their perspective of what an instrument should be. We think about what makes the instrument beloved by musicians and the bond between them. When you spend too much time on artistic add-ons or use expensive pieces of wood purely because they're expensive, you distract yourself from the target: making an instrument for music.

"An unforgettable moment came when we plugged the final Heartbreaker prototype into a real amp. Macmull tone means clarity, extended dynamic range, tight bass response, defined, rich and complex harmonics and, the most important thing, midrange."

What are your biggest opportunities and challenges in the coming months?

"When you choose to make top-end guitars, your brand's about passion and not all about business, and you need to reserve your place in that pyramid. The key is looking forward and having a solid plan for the future. For a boutique company, that's not an easy task. But we are enjoying the benefits of having a tight-knit family team and we're embracing the journey. We feed our souls through our work. Music is bigger than us and it's music that will fuel Tal and me to continue this obsession for the rest of our lives."

What's next for the company?

"We launched the Heartbreaker NEO series this year. It's our way to come out with something new but stay classy and simple. We're currently working on a bigger project, a whole new series (not T- and S-style guitars). It's something that will take our philosophy to the next level in terms of simplicity and unique design." G

Find out more about Macmull Custom Guitars at macmull-guitars.com

SHOP TALK

DOUG KAUER
GUITAR MAKER

WORDS DAVE HUNTER
PHOTOGRAPHY SCOTT BECKNER & ELEANOR JANE

In an industry that fetishises all things hand-built, it can be refreshing to hear a manufacturer state that some forms of automation are capable of creating greater guitars. Doug Kauer values the creativity of human hands, while celebrating the power of machines

More so than the makers, it's probably the customers of the boutique-guitar market who have romanticised human hands: bodies and necks must be hand-carved, pickups hand-wound, finishes hand-sprayed. Ask makers to speak candidly, however, and many will admit to superior and more consistent results when automation is allowed to play its part. Doug Kauer, head of California-based Kauer Guitars and a luthier with a growing reputation, is one of them.

"There's that question of how we can take something to a level that the hand simply cannot match," says Kauer. "And that's what blows my mind. The CNC is a legitimate tool that opens up all kinds of possibilities we didn't have before, and then the Plek machine is the next level. We've been taking guitars that I thought were the pinnacle of my experience and the best-playing guitars I've ever done – and then you put them on the Plek and realise that they're good but could be noticeably better.

"It's amazing to see how many cottage industries have sprung up from people who are taking advantage of – and this is going to sound very bourgeois – the democratisation of technology," he adds, "using CNC machines, CAD/CAM software and stuff like that."

EX MACHINA

Stuff like that seems to come naturally to Kauer; it's in his blood. He was born in Elk Grove, California, in 1983, after his parents had moved away from the San Francisco Bay Area to escape its rising cost of living. His dad devoted much of his career to the precursors to such machines.

"My dad got into woodworking as a hobby," says Kauer. "He got into restoring these things called Shopsmiths. They're like Swiss army drill presses, I don't know how else to describe them. They're all-in-one variable-speed presses that you can lay flat and use horizontally. There was a table-saw attachment and a sander – most of the stuff was terrifying but, as far as drill presses go, they're fantastic machines.

Doug Kauer built this custom Super Chief doubleneck for Rival Sons' Scott Holiday

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“GUITARS AREN’T MADE BY SOME DUDE ON A MOUNTAIN TOP, A GIFT FROM THE HEAVENS THAT ONLY A CHOSEN FEW COULD CREATE – IT’S WOOD, METAL AND STRINGS, YOU KNOW? ALMOST ANYBODY CAN LEARN TO DO IT. IT’S NOT SOME MYTHICAL ART”

We have a bunch of them here. My dad got into restoring them and then got into making cabinets and furniture, which evolved into his first shop.”

When Doug Kauer was five, his father left his day job to set up his own full-time cabinetry shop. The family business paved the way for a lifetime of learning for junior. “The running joke has always been that child-labour laws only apply to everybody *else’s* kids,” says Kauer, with a laugh. “I got stuck working at the shop my whole life.” Little did he know, of course, that such work would eventually *become* his life.

As his formal education progressed outside the shop, Kauer eventually began working to complete his teaching credentials, and still bears a love for the classroom. Even his experiences in the California state school system, though, seemed to be steering him back to the wood shop.

“I took CAD [computer-aided design] in my senior year of high school because it counted as a math class,” says Kauer. “Then, in about 2000, my dad’s cabinet shop became the first in the Sacramento area to have a CNC machine. This really nice piece of maple came into the shop – my dad had ordered a bunch to make crown moulding or whatever he was doing. Dad played guitar too. I’d made a lot of furniture over the years as a kind of side income, and I saw that piece of maple and thought, ‘You know, I kind of want to build myself a guitar’.

“At the time, I didn’t know there was a boutique industry,” he continues. “I played guitar and had always tinkered with mine but I had this weird epiphany:

ABOVE Scott Holiday with ‘Excalibur’, one of several Kauer Banshee models in his enviable guitar collection

FACING PAGE Doug Kauer’s own 12-string Super Chief has TV Jones Super’Tron pickups

guitars aren't made by some dude on a mountain top, a gift from the heavens that only a chosen few could create – it's wood, metal and strings, you know? Almost anybody can learn to do it. It's not some mythical art."

BAND OF BROTHERS

The truth is, Kauer never intended to get into guitar making at all. He used the resources in his dad's wood shop to make one, then another, and another, learning from his mistakes and improving upon the last. When the recession hit in 2008, however, just six months after he and his wife Theresa had bought a house, Kauer went back to work full time at his dad's shop, while Theresa pressed forward with her own teaching qualification. As cabinetry work slowed in the trough of the recession, guitar making stepped in as a means of filling the downtime and bringing some surplus income.

Running standard bodies for friends' projects segued into building ground-up Firebird copies, which paved the way for Kauer's first original design: the Daylighter.

"I designed the Daylighter as a Jazzmaster meets Les Paul mash-up," he says. "Two humbuckers, Gibson scale, set neck, that kind of thing. It just happened to be right place, right time. People started bumping me for them. I was like, 'I don't know if this is what I want to do. I don't know if I want to ruin another hobby of mine', which I had done once before and was apprehensive about doing again. But people started asking and there wasn't a lot else to do.

"It sounds like such a terrible way to get into it! I started getting more serious and that's when I found out there was a boutique industry. I went to NAMM and a friend told me I should go and introduce myself to Nik Huber and Juha Ruokangas. I talked to Nik on the first day and I remember thinking, 'Those things cost four grand and they're all sold on the first day'.

“I DON’T FIND MUCH VARIATION IN THE SOUND OF FRETBOARDS. WE PICK FRETBOARDS FOR STABILITY AND SUSTAINABILITY, HOW THEY MACHINE AND HOLD A FRET, AND THEN HOW THEY LOOK. THE LOWEST OF THE LOW IS WHAT THEY SOUND LIKE, BECAUSE IT’S A ONE PER CENT DIFFERENCE AT BEST”

OPPOSITE This Super Chief belongs to Doug’s dad and sports TV Jones T-Armond pickups and custom inlays that pay tribute to the family truck – the 1964 Chevrolet C10 formerly owned by Doug’s grandfather

Honestly, I wish I could have gone back in time and bought them all, because Nik’s guitars are, what, about ten grand now, average?

“That same year, in July, I did the Montreal Guitar Show, which was my first real show as a builder. I was maybe on guitar 40 or 50 at that point. I walked into the show to set up and Nik was there, and he remembered who I was. He was like, ‘I’m so happy you’re here! I’ve been following what you’re doing online. I’m really excited things are going well for you!’ I walked away from that thinking, ‘What other industry would this happen in? This is insane!’

“I had fun at that show – I think everyone in Montreal knows I had *too* much fun – but I also sold a guitar, everybody was supportive, and I made friends that I still talk to today. After that, I came home and quit my job. I wanted to go full-time into this. These were the people I’d fallen in love with – and almost secondary was the idea of selling guitars to people.”

WAILING BANSHEE

In addition to his Daylighter model gathering steam on the market, Kauer found that a surprising number of guitarists who remembered his early efforts at the Firebird format were now coming back for reverse ’Birds of their own. He’d avoided them for the first few years of the business – “I was very happy to get our cease-and-desist order!” – but few fledgling guitar makers can afford to turn down work, so he begrudgingly heeded the call.

“I have a love-hate relationship with the Banshee,” says Kauer of the reverse-bodied model that has evolved from his early shots at the ’Bird. “I love that guitar and the current version is a different thing but the original? Yeah, it was a Firebird copy and I just didn’t want to be that guy. I wanted to stand on the merits of my own designs. But I’d made some improvements that people caught wind of and we gained a reputation for making the best version of that guitar.”

Since the early years of the Banshee, given the differences that now separate it from the Firebird, Kauer and Gibson have come to an agreement that allows him to continue production of his own reverse-bodied through-neck guitar. For the most part, though, Kauer is more satisfied when working on his own original designs, trying to devise lines, stylings and features that represent something new but aren’t so unfamiliar that they repel guitarists.

“I wouldn’t say that we’re groundbreakingly original,” he says, “not by any stretch. But I knew the niche for what I wanted to do and was dumb enough to get started and stubborn enough to stick with it. Eventually people caught on.”

Designing remains one of Kauer’s favourite aspects of the business but finding time for it is an ever-present issue: when trade is good there are fewer opportunities to get back to the drawing board; when business is slow, it’s all hands on deck trying to drum up customers to keep both himself and a company of five employees afloat. Either way, design has to take a back seat.

“We did the Daylighter in some variation for nine or 10 years and it’ll come back at some point,” says Kauer. “Then I came up with the Starliner, which I love right now. I think that’s what helps keep us going. I always feel bad for – I mean, I don’t really feel *that bad* for The Rolling Stones – but I imagine playing *Brown Sugar* for the millionth time must suck, but when you’re making enough to buy an island, it offsets the pain.

FACING PAGE Scott Holiday's six-string Super Chief photographed at his home in Huntington Beach, California

"I just want to do things that make me excited to come to work," he adds. "I get what I call slow-forming ADD. Outside of the Banshee, most of what we make will have a lifespan of about four years, then I want to make something new. I will never get rid of the Super Chief either. That is everything from 12 or 13 years of doing this, all accumulated into one guitar."

ALTERNATIVE TONEWOODS

Kauer's modest quest for originality encompasses not just aspects of his guitars' designs but also materials. The Californian enthusiastically embraces new materials and components that might fall outside the internet's flavour-of-the-month ingredients and subvert many guitarists' expectations, and frustrate so many builders in the process.

"We were early adopters of a couple of things," he says. "Juha Ruokangas turned me onto Spanish cedar, which we renamed 'Spanish mahogany', seen as it's not cedar and it's not Spanish, it's a mahogany variant. That was a great bit of advice. It's 99 per cent of what the Kauer sound is. It checked all the boxes I wanted from a wood. It sounds superb, the weight's great, everything about it is really good. That was an early-on thing for us.

"We went through the gamut of fretboard woods and, early on, we did a guitar with a wenge fretboard. I hadn't heard of wenge but ended up falling in love with it. It isn't environmentally impacted like many of the rosewoods were. We switched permanently to that within the first year of Kauer as a business and it's paid dividends, especially in the past few years.

"It's tough. Both Spanish cedar and wenge aren't the rubber-stamped formula that everybody knows and it took a while for people to trust my word that they were great. When the rosewood restrictions happened, everybody had to face the reality that, especially with wenge, there are lots of other great woods out there that aren't so impacted."

This talk of fretboards gets us onto another Kauer departure, this time from the popular line on tonewoods and their supposed impact on a guitar's overall sound – namely, the significance (or lack thereof) of this thin slice of timber in the final brew.

"Frankly," says Kauer, "I think fretboard wood choice is way overblown. I've found from experience that if you want to drastically change what a guitar sounds like, changing what the neck is made from and how it's made is a very different equation. But as much as people hype what the fretboard wood is, I don't find much variation in the sound of fretboards. We pick fretboards for their stability and sustainability first, then how they machine and hold a fret, and then how they look. The lowest of the low is what they sound like, because it's a one per cent difference at best."

FINISHED PRODUCT

Many guitarists and makers also rail against finishing processes that deviate from the 'best practices' but this is another area in which Kauer is willing to trust the empirical evidence. As with wood choices, there are environmental reasons for reconsidering the supposed supremacy of nitrocellulose lacquer. As for objective assessments of the results, Kauer says there are reasons there too to consider the alternatives.

"We're in California and I have restrictions about spraying lacquer in the first place," he says. "We quickly surpassed the amount that we could get away with spraying legally. I switched to [poly]urethane and was so nervous about it. I didn't talk about our finishes for a while because I was anxious that people were going to be like, 'Oh, it's not nitro so it can't be good!' I've never heard any difference between those guitars and I've had plenty of examples on both sides.

"The UV finishing made a monumental difference in the quality of our finish," he adds, "not to mention the turnaround time. The quality went through the roof. That's when I just stopped worrying about that stuff. There are so many individual components and pieces and steps and techniques, and I'm happy with the sum. I'm not hung up on how we got there." G

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On lockdown and looking for a DIY project to keep you sane? Try building a clone of the legendary Klon Centaur with a Centura kit from Ceriatone

OUTPUT

CENTURA™

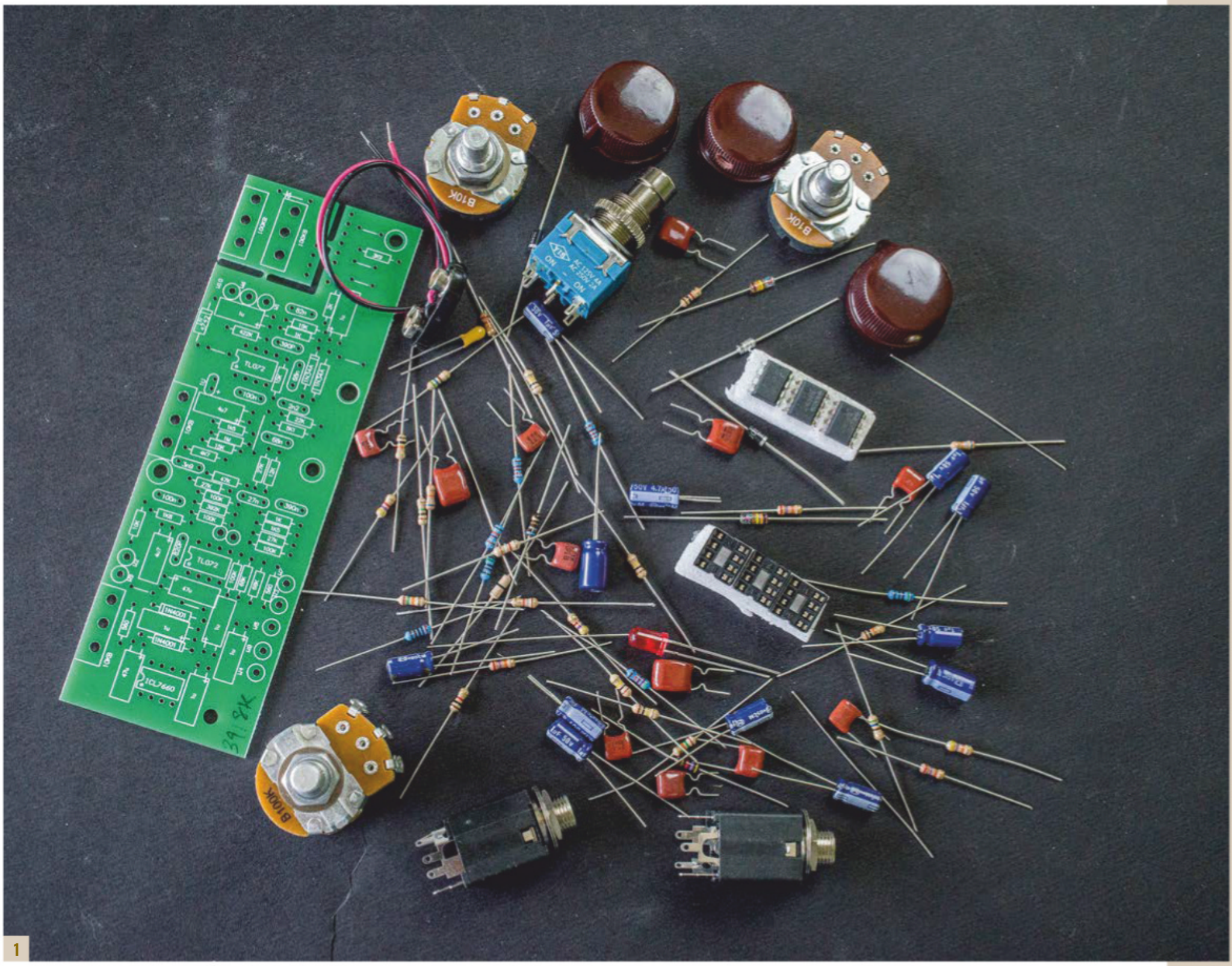
GAIN

TREBLE

OUTPUT

KLON

CENTAUR™



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The demand for Klon Centaurs has driven prices into the stratosphere. All of the originals were hand-built by Bill Finnegan, who joined forces with a couple of MIT engineers to design this most-revered boost/overdrive pedal. By stompbox standards, it's a complex and highly original circuit, and after producing about 8,000 units between 1994 and 2000, Finnegan decided he'd had enough.

With demand so high and supply cut off, the inevitable happened: a mini-industry of Klon cloners has sprung up over the past two decades. But it's only Malaysia's Ceriatone that has gone to the trouble of recreating Finnegan's original enclosure and PCB layout – and the result is the Centura Professional Overdrive.

Ceriatone offers various options. You can buy the printed circuit board and enclosure or get the PCB fully assembled. You can also buy the pedal pre-built, or a full kit with a variety of finishes and graphics. I can't resist the chance to build my own and learn more about this fabled circuit in the process.

BOUTIQUE BUILDING

Ceriatone's Centura kit is an advanced build but only because the amount of components invovled is higher than usual for a DIY overdrive, and the instructions don't hand everything to you on a plate. You'll need to read them carefully and do some planning for final assembly.

Choices need to be made from the get-go too. Though the Klon Centaur circuit remained almost unchanged throughout its production run, Finnegan did tweak a few component values. In 1995, two of the 1uF capacitors in the signal path were increased to 4.7uF to let more low frequencies through, and a 15k resistor was added to 'sweeten' the midrange. Three resistors were also added to reduce popping from the footswitch, but they have no effect on the sound.

The manual lays all of this out and identifies the components on clearly drawn diagrams. Having the anti-popping resistors is a no brainer but I'm less sure about the extended lows and bolstered midrange. Since the vast majority of Klon Centaurs have the later circuit, I decide to try it.

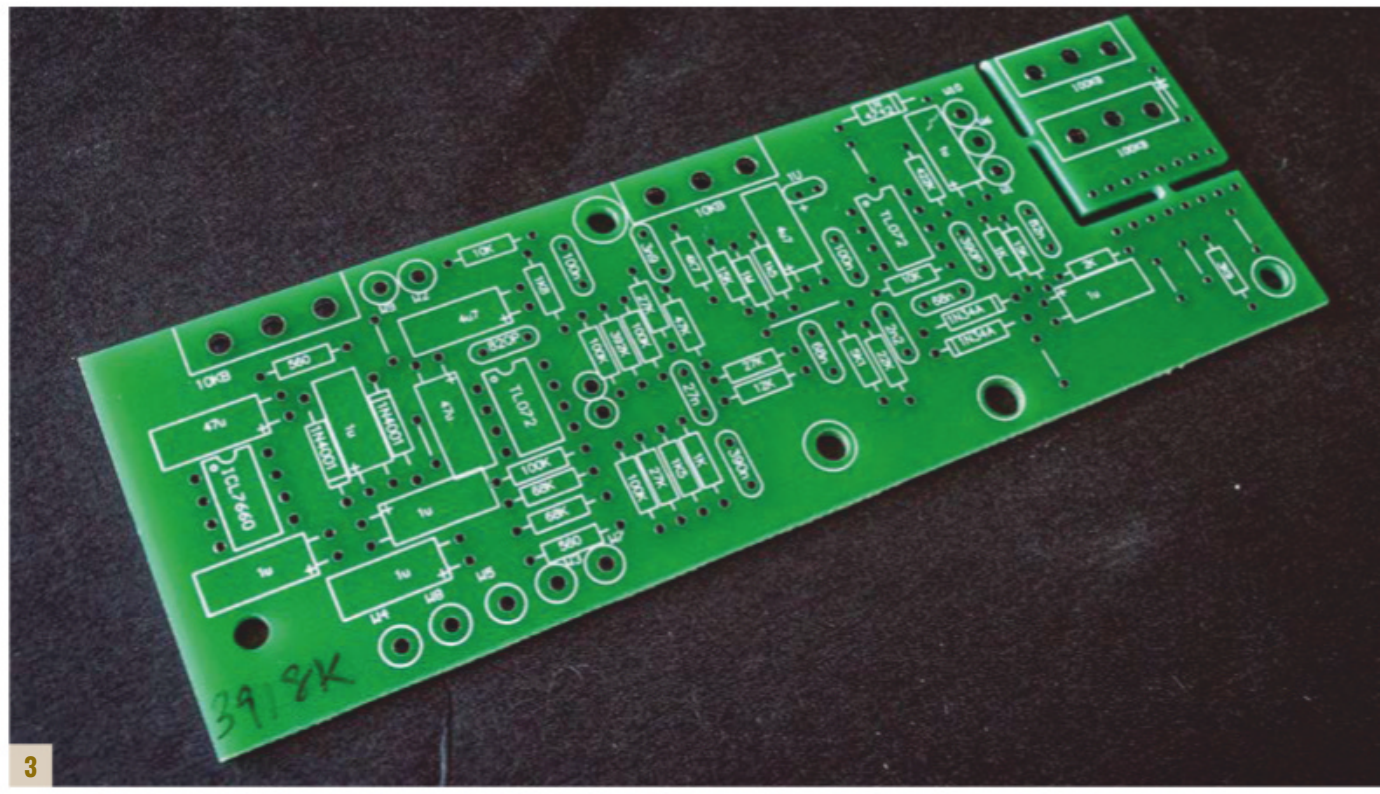
As with any kit, the first task is to sort through the components and verify that everything on the list is present. I prefer to work from printed instructions, so I run a length of masking tape along the left-hand side of the page adjacent to the resistor list.

Even if you know your colour codes, I recommend measuring each resistor using a multimeter. Once I've identified and verified a resistor, I place one of its wires under the masking tape alongside its position on the list. This helps to keep things organised and means you only have to sort them out once.

Electrolytic capacitors are not difficult to identify, because the values are written on the casings. The film capacitors have three-digit numerical codes with the value and a multiplier, so you may need to find an online capacitor code table for clarification. Beware of the small yellow 1uF capacitor too – it's polarised, with one leg bearing a tiny plus sign printed next to it.

The PCB is compact but the component positions and values are plainly marked. I solder the three integrated circuit sockets, using an small-tipped iron set to 350 celsius.

2



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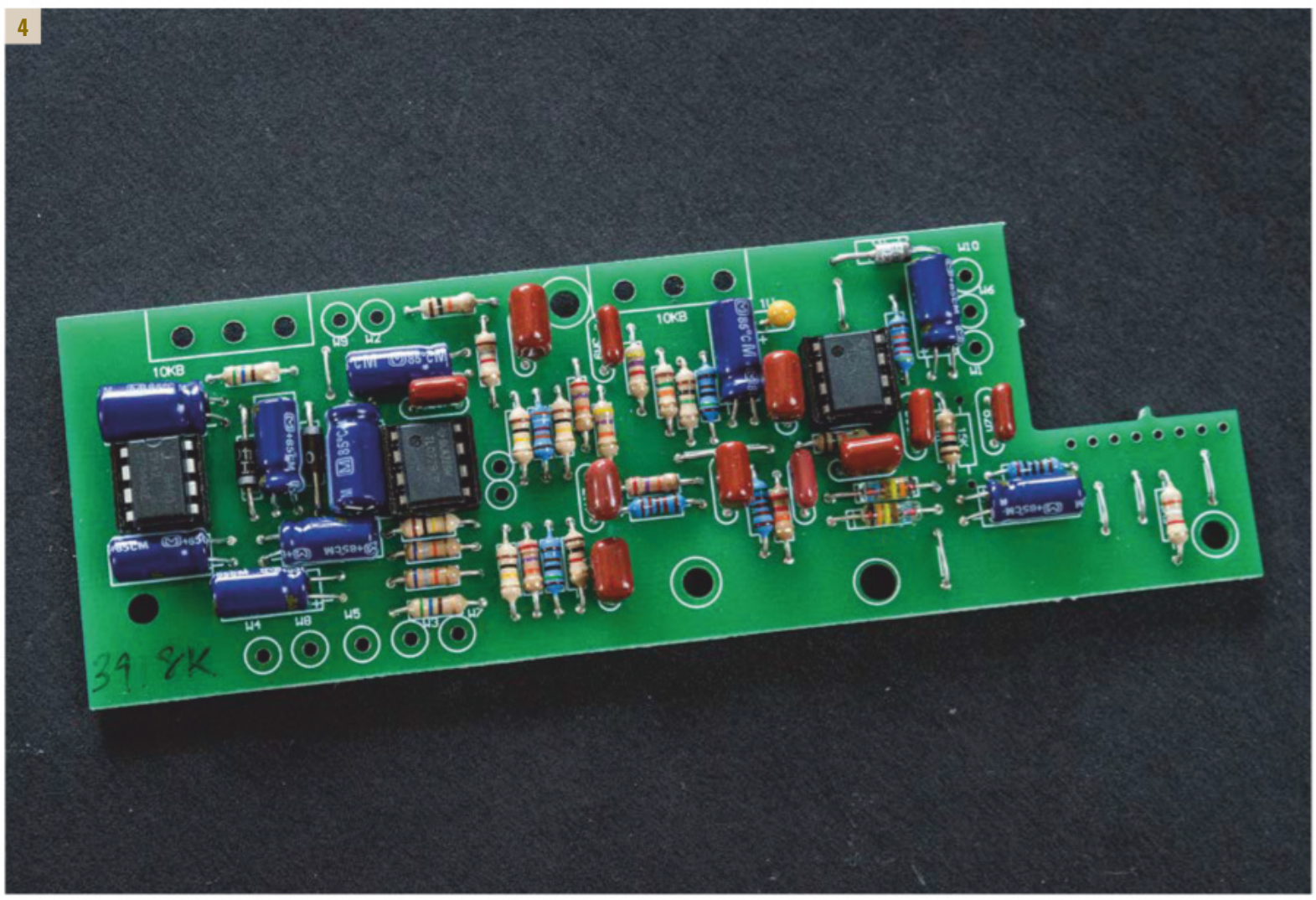

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1 The Centura kit contains a higher component count than most overdrive kits, so it's worth sorting everything out before you begin

2 Running masking tape down the side of the component page of the instructions can help you sort the resistors

3 The PCB is clearly labelled but you'll need a soldering iron with a fine tip because the joints have to be small and neat

4 All the components have now been mounted on the PCB, along with a few jumper wires

Excessive heat can damage a circuit board, so it's a more delicate job than soldering components onto eyelet and turret boards.

Next, I mount the resistors, pushing the wires through the PCB holes, pressing the component against the board and folding the wires over slightly on its rear. This holds the resistors in position as I solder the joints, and once the joints have cooled, I snip off the excess wire. Doing four or five resistors at a time, I work my way through them all and finish by soldering the seven link wires.

I follow the same procedure with the diodes. There are five in total – three used in the power supply and two 'germanium' clipping diodes that augment clipping in the op amp to produce the Klon's distinctive overdrive characteristic. Pedal geeks have long argued about the diodes Finnegan used. The PCB is labelled 1N34A, and Finnegan confirmed in a forum post that this is the diode he used in the Centaur. However, countless versions of the 1N34A have been made over the decades, and Finnegan asserts that they all sound different when used for clipping. Having tested numerous diodes for my own pedal builds, I concur. Has Ceriatone managed to source the exact same type as Finnegan's apparently unobtainable Russian diodes? We'll soon find out.

The electrolytic capacitors go in next, followed by the brown capacitors. I fold the electrolytics over, as in the original pedals. With the PCB fully loaded, it's inspected to ensure there are no overlooked solder joints or accidental solder bridges between traces that shouldn't be connected. Once I'm confident it's okay, it's time to load up the enclosure.

GETTING LOADED

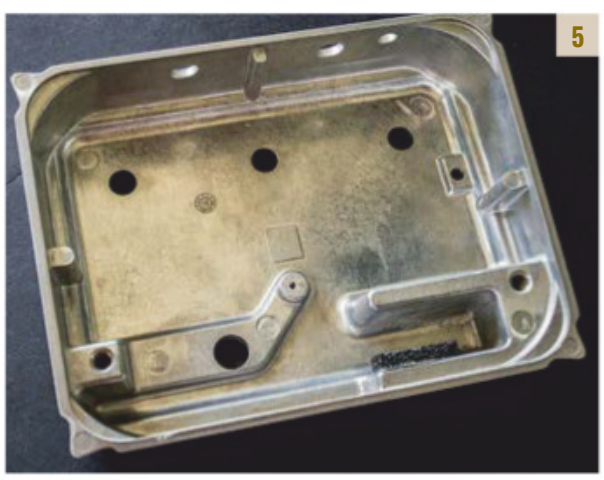
Even without the instructions, it's plainly apparent where all the pots and connectors go. Just remember that the dual-gang pot is for gain and make sure the jack sockets are oriented properly. The diagrams show this clearly but you can verify the socket connections by plugging in a guitar cable and using a meter's continuity setting to identify the tags that correspond with top, ring and sleeve.

Klons were built with pots designed to be soldered onto PCBs. Instead, Ceriatone supplies pots with rounded solder tags, and the volume and tone pots have to be spun 180 degrees so that the solder tags point away from the PCB. The gain pots have the same connections, which renders the detachable section of the PCB unusable.

5 Ceriatone's replica enclosure is excellent

6 Once the pots, sockets, switch and PCB have been mounted onto the enclosure, the lengths of hookup wire can be measured

7 Ceriatone supplies grey insulated wire as seen in original Klons, and once the hookup wires are soldered to the PCB, it's ready to install



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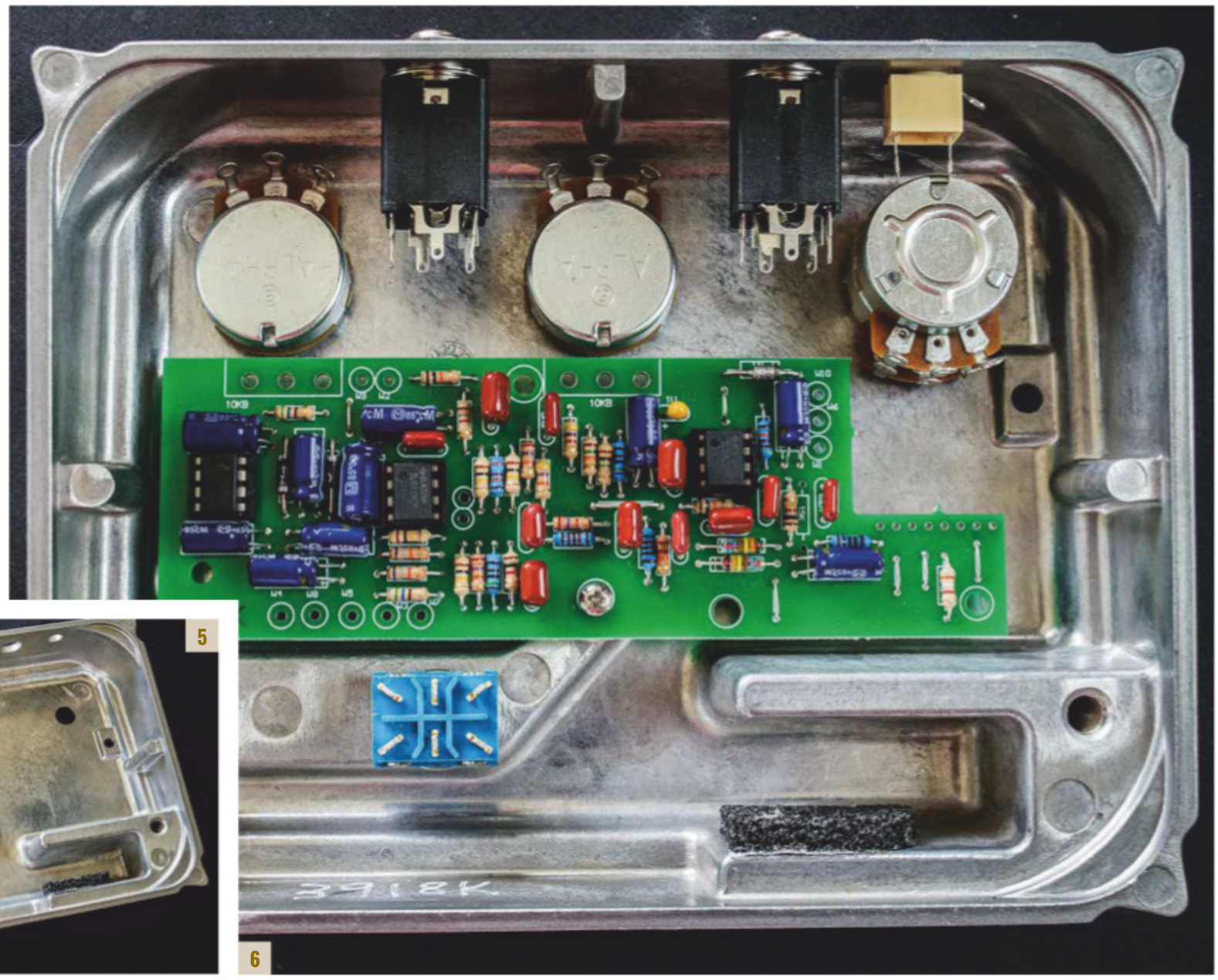

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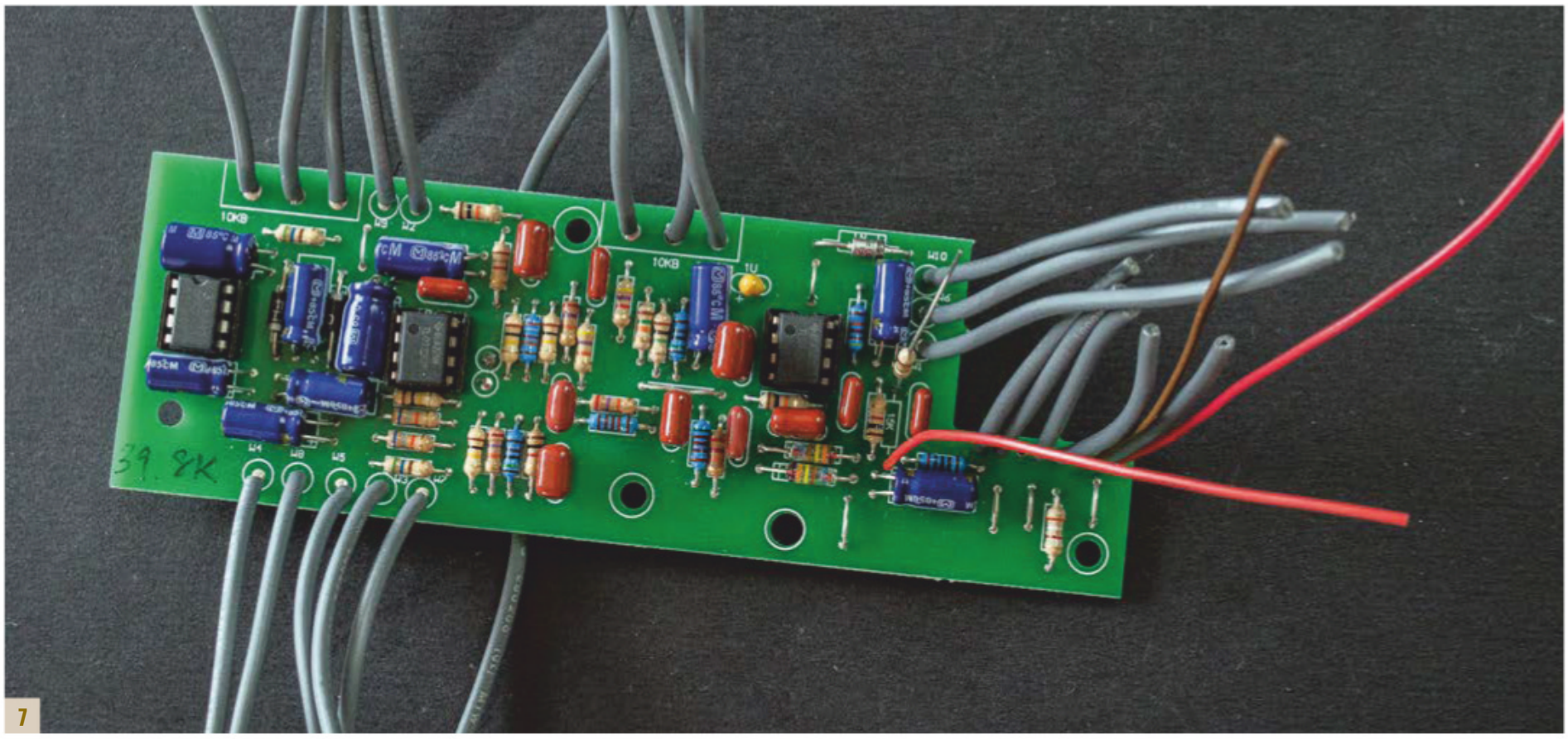

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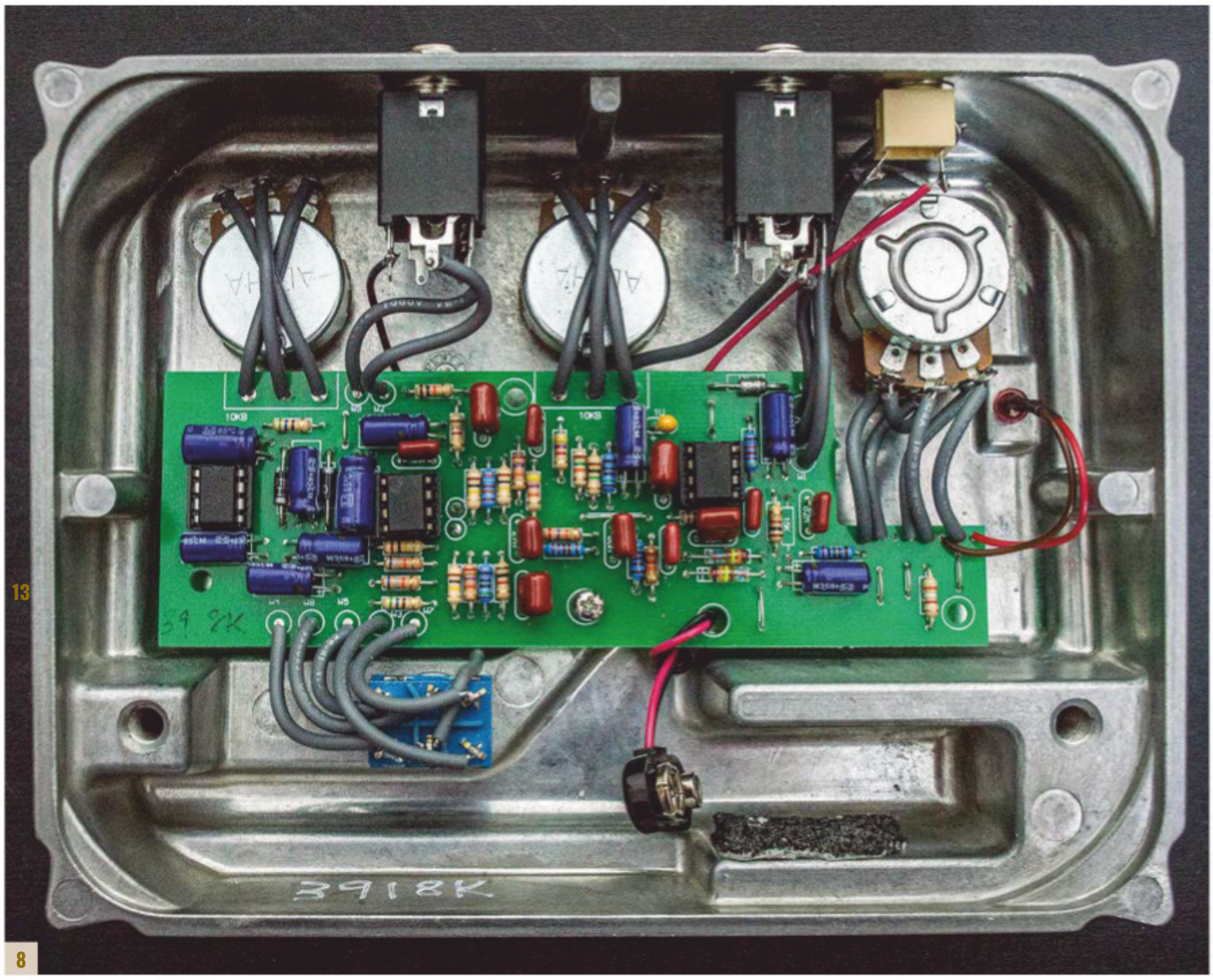
All the pots, as well as the switch, sockets, LED and power supply socket, are connected to the PCB by jumper wires. With all the hardware loaded onto the enclosure, I temporarily screw the fully assembled PCB onto the enclosure too, so that I can cut lengths of wire for each connection, all oversized by about 10mm.

Since these wires have to be pushed through the holes and soldered onto the underside of the PCB, I unmount it before soldering the wires on. I then remount the PCB and screw it down. While continually referring to the wiring diagram, I work my way through all the wiring links, trimming the wires to the correct length as I go. With the wiring completed, testing can begin.

THE BEST TEST

After finishing a pedal build, perform a continuity test between the positive connector of the battery clip and ground. If you hear the multimeter beep, check all your connections before powering up. If there's a problem, you may damage components on the PCB. A hot battery is another warning sign. In this instance, I connected the two wires leading to the DC socket the wrong way around – probably due to over excitement. But having spotted and fixed the mistake, the pedal works the first time around.

Initial impressions are favourable and I'm thrilled with the sound. But before the analysis, most of you will want to know how the Centura stacks up against a Centaur.



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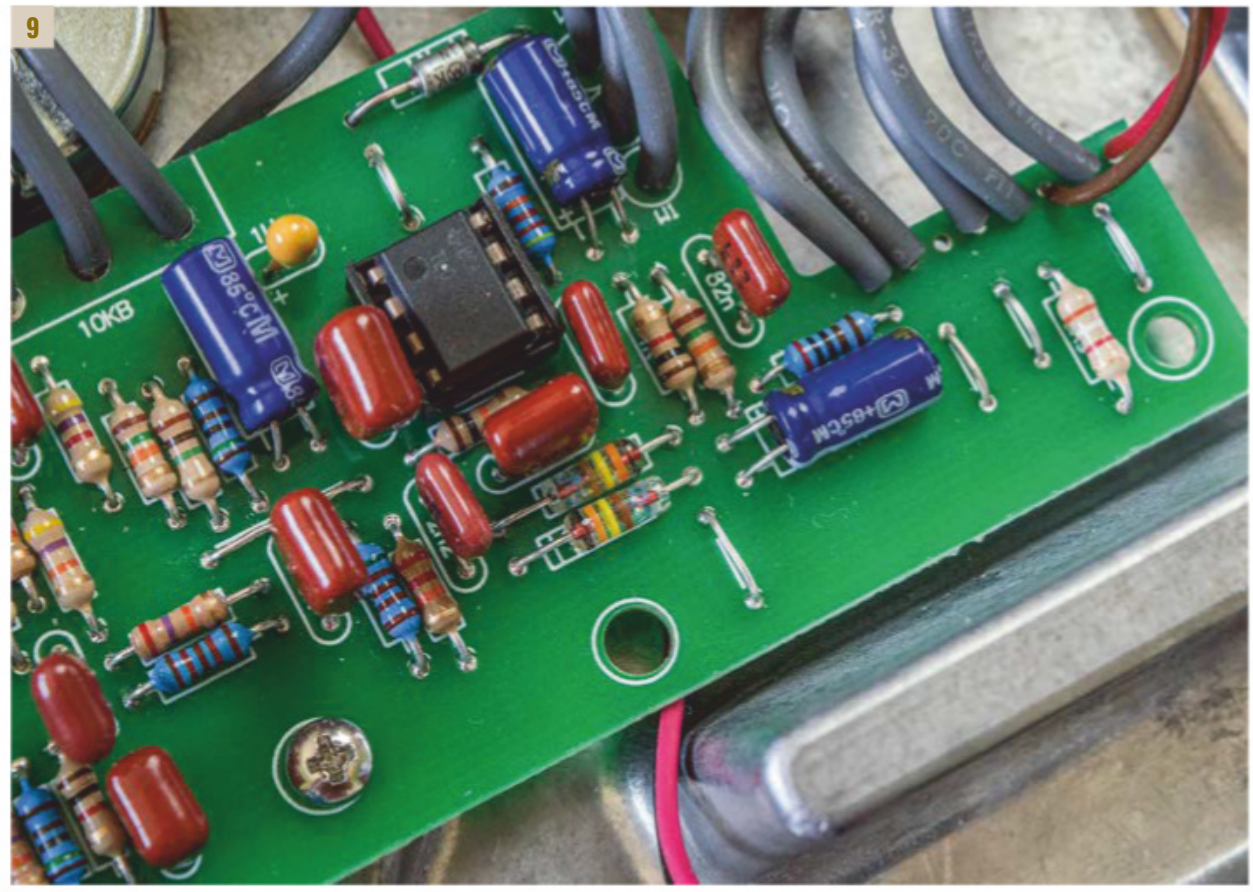
8 The pedal is fully assembled and this is the final version with the 15k resistor taken out of the circuit

9 There has been much debate about Klon clipping diodes – the wasp-like components are the 1N34A diodes supplied with the kit



Thankfully, my friend and fellow *Guitar.com* contributor Ed Oleszko has kindly loaned me his so we can find out.

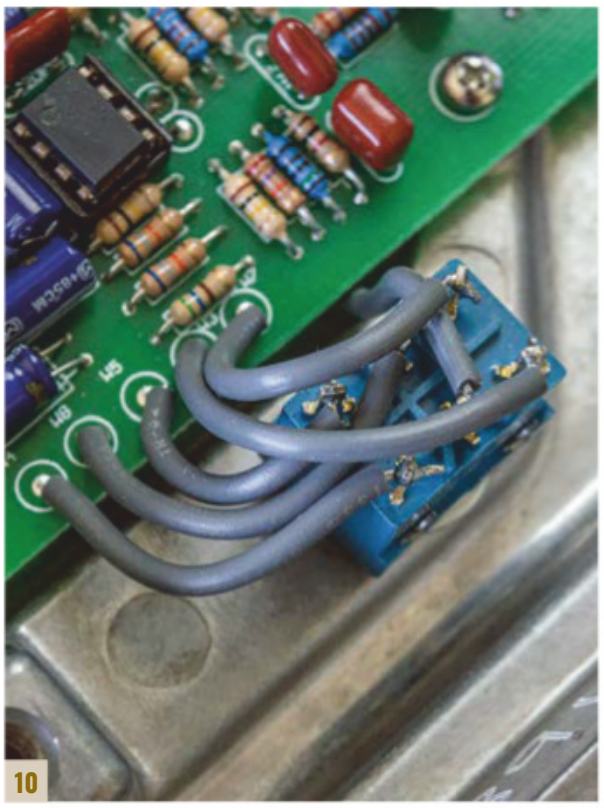
The Ceriatone version gets ever so close but it's not quite the same as Ed's original. There's an even frequency balance, clarity and wide-open chime with the real Klon in the signal chain – both on and when bypassed – that sets it apart. Frankly, though, it's closer to a £15 difference than a £1,500 difference, and to my ears the Ceriatone has a touch more low-frequency content. This softens the bass response and clouds the lower mids, equating to a bit less punch and clarity.

As the gain is increased, I hear a slight midrange boxiness and the Centura doesn't have the Klon's upper-mid sweetness. Of course, this is in direct comparison to one specific Klon rather than a selection of units, but it does get me thinking about those two 4.7uF signal capacitors that are installed instead of the 1uF caps. It could be that the Centura's extra low end is the issue.

A few minutes later, with 1uF capacitors freshly installed in the C2 and C15 positions, the Centura is sounding considerably closer to Ed's original Klon. The lows are tighter, which improves matters more with a Les Paul than a Strat, but we also hear a little more clarity and definition. However, the Centura Professional Overdrive still falls slightly short on chime, low-string punch and pick articulation.

I think this is attributable to a bump in the low mids, so my attention turns to the 15k midrange sweetening resistor. Connecting it with flying leads and a switch makes it easy to assess its influence and, although subtle, taking the resistor out of the circuit appears to even out the low mids, and ensures that our Centura starts delivering on that Klon chime, punch and clarity. It's less thick and velvety, though. If you were to modify this kit, a permanently installed midrange switch for the 15k resistor might be a useful option.

As with all Klon pedals, the circuit board in Ed's is covered in an opaque black goop that makes it difficult if not impossible to identify the signal caps, so I have no idea if the 15k resistor is installed or not. Ed's has a relatively low serial number but there's no sure-fire way to date original Klons. Having found that the kit can be tweaked to sound identical to a randomly selected Centaur by opting for the earlier-style circuit, it's not unreasonable to assume that the kit can be configured to sound like a later Klon too.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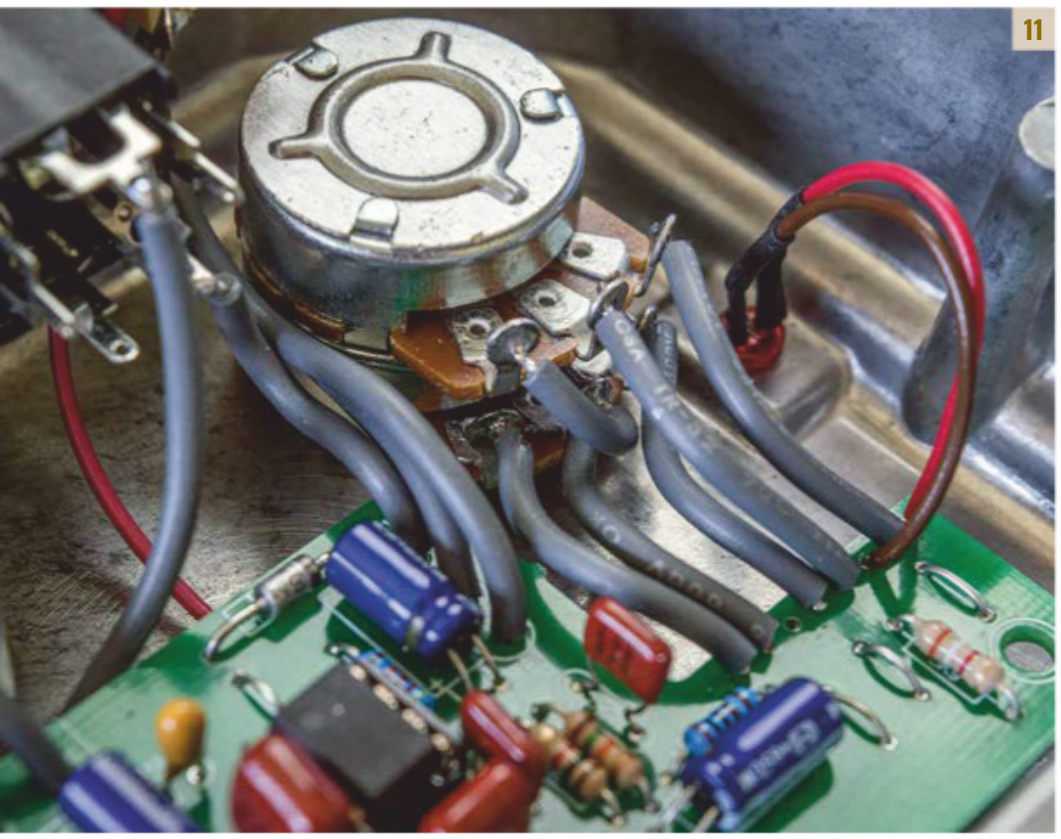
10 The switch is located close to the PCB, so wire lengths can be kept short

11 Ceriatone supplies a different style of dual-gang gain pot so the detachable section of the PCB is redundant and the pot and LED have to be hand-wired

12 Placed side by side, we can tell how close the Centura is to the real deal, even if most of the Klon's circuit is covered in that infamous black goop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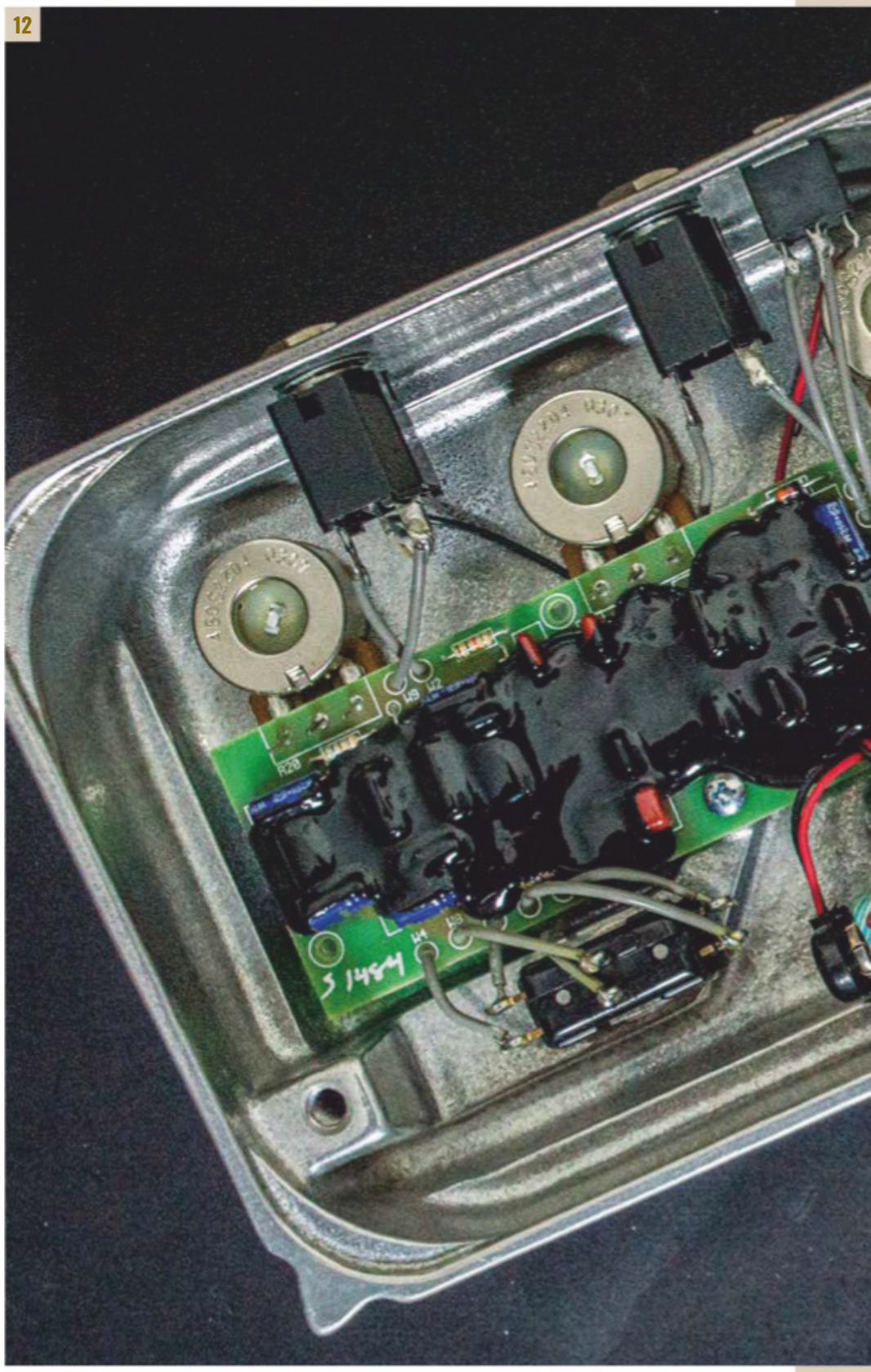
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It's not a question of which is best but rather which sounds best to you and best suits your rig and playing style.

LEGENDARY TONE

I first tried a Klon Centaur almost two decades ago and it left a big impression on me. I was amazed by the sound quality and yet couldn't quite decide whether it was a boost or an overdrive pedal. Of course, it's actually both. But I've always thought of it as stepping on a 'better' switch, because it just seems to improve the sound of every guitar and amp. Indeed, it's not difficult to see why so many of the Centaur's fans rarely switch the thing off.

Klons somehow enhance things without obviously changing your sound. I'd liken it to a studio scenario where a sound engineer subtly tweaks a recorded guitar sound using high-quality equalisation and compression. It's basically the same sound but clearer, punchier, more present and better integrated into the mix.

In many ways, this subtle supercharging of your tone is as much about feel as it is sound. This circuit frees you up to be more expressive and dynamic in your playing because it's always easy to hear the finer details as they punch through – and this really shines in the context of a live or recorded band mix.

It seems that the various frequency bands within an electric guitar's audio spectrum are processed separately, with more dirt and compression in the mids but less in the bass and treble. It feels smooth and sustaining, even when the gain is set low, and you never feel like you're struggling against the iron grip of excessive compression. If anything, I'm even more impressed by the Klon circuit 20 years later, and everything I've said about it appears to apply equally to the Ceriatone Centura.

TOP KIT

The quality of the Ceriatone Centura kit cannot be faulted. The Daka-ware knobs are indistinguishable from those on the original and the attention to detail is extraordinary. We could point to some slight differences between the enclosures, with the original sporting slightly crisper lines. But you're unlikely to notice unless you place them side by side. We prefer the Klon's polished-metal look too but the Centura's finish is also excellent.

For those with the necessary DIY skills, the best pedal kits provide a cheap and viable alternative to boutique pedals. At $200 (US), the Ceriatone Centura isn't cheap compared to other klones and kits. But it's the only one we've seen with this degree of accuracy – and it costs a fraction of the price of the real thing. It's only an extra $25 to buy the kit fully assembled but I enjoyed building it and being able to tweak the circuit, and I couldn't be any happier with the way it's turned out. G

Follow Bill Finnegan on Instagram @klonllc or visit ceriatone.com for more on this kit

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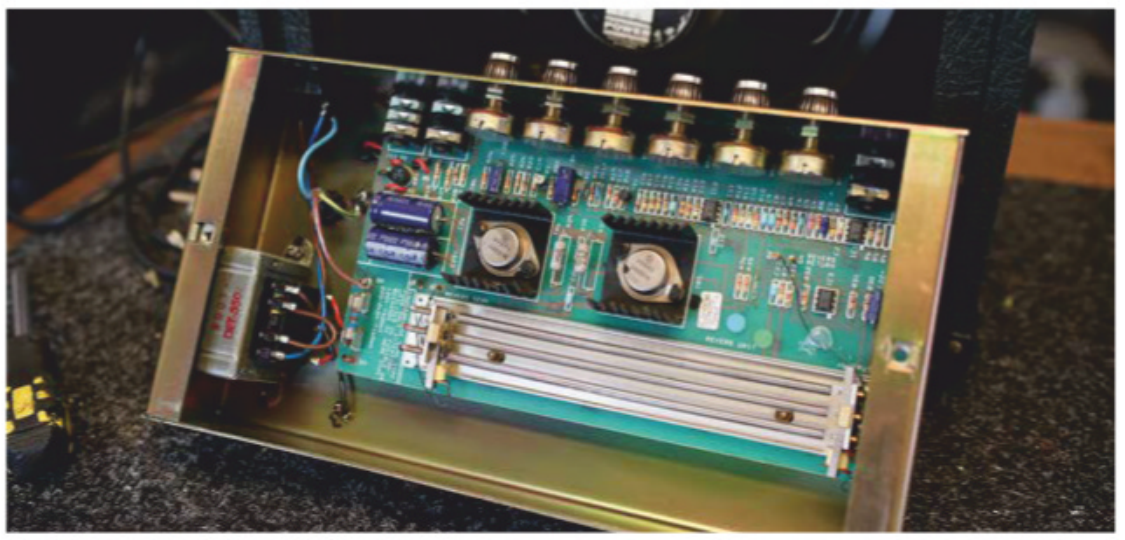
AMPLIFIER FAQ

Rift main man Chris Fantana checks out a cheap and cheerful solid-state amplifier from the 1980s that could be perfect for the modern era

Have a burning question about your amp or, worse still, a burning amp? Email us at editors@guitar.com



ABOVE An M6 machine screw holds each end of the Marshall Reverb 12's chassis to the cabinet

ABOVE RIGHT The amp's chassis is well designed and replete with high-quality components

TOP RIGHT The 16-ohm Celestion G10D-25 speaker has a bigger sound than you might expect

Hi Chris. As someone who makes and repairs valve amps, are you strictly all about the hot glass? I'm looking for something cheap and cheerful that doesn't upset the neighbours during lockdown and wonder if there are any solid-state amps you'd recommend.
NIGEL, PUTNEY

Great question, Nigel. It just so happens that an amp crossed my workbench this month that could be ideal for your requirements.

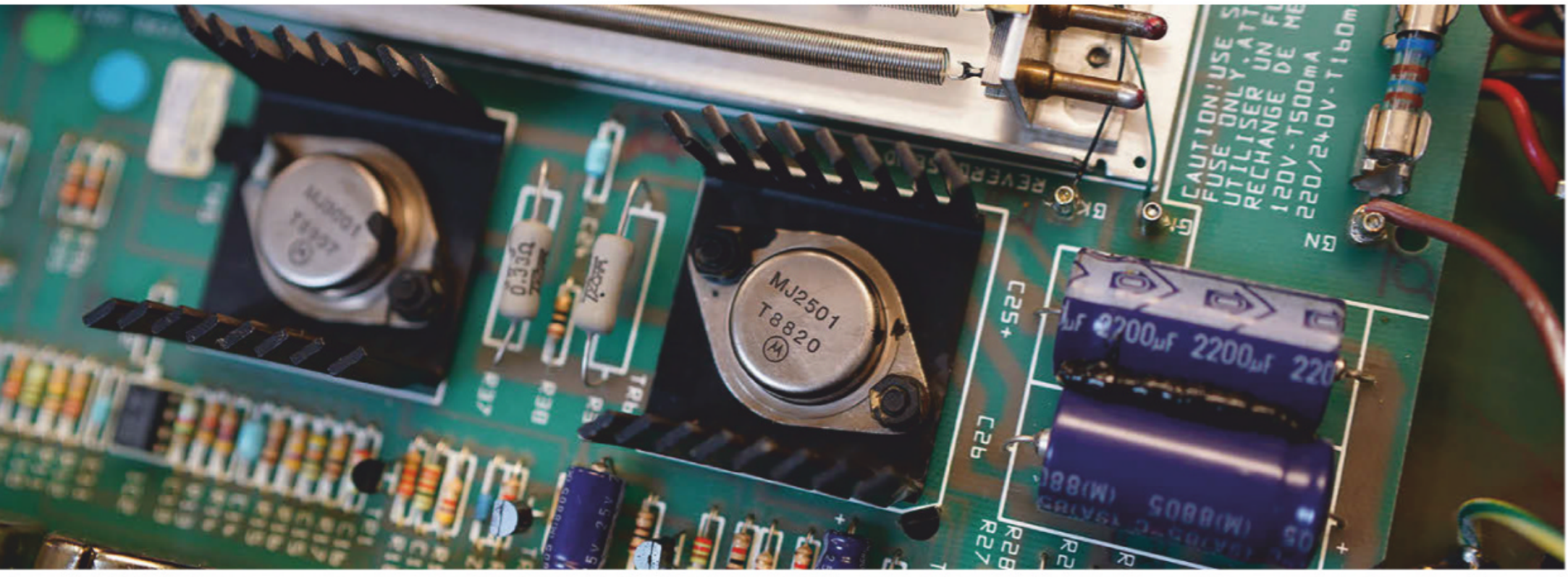
It's no secret that I'm a valve-amp enthusiast. For such 'ancient' technology, valve amplifiers can still make jaws drop the world over. I could wax lyrical about this for a long time, and I've been known to sing the praises of thermionic vacuum tubes to the editor of this very publication into the small hours of the morning. Valve circuits aside, there's another amp that stirs up in me those same emotions – and it's a solid-state one. "Heresy!" you shout. But bear with me.

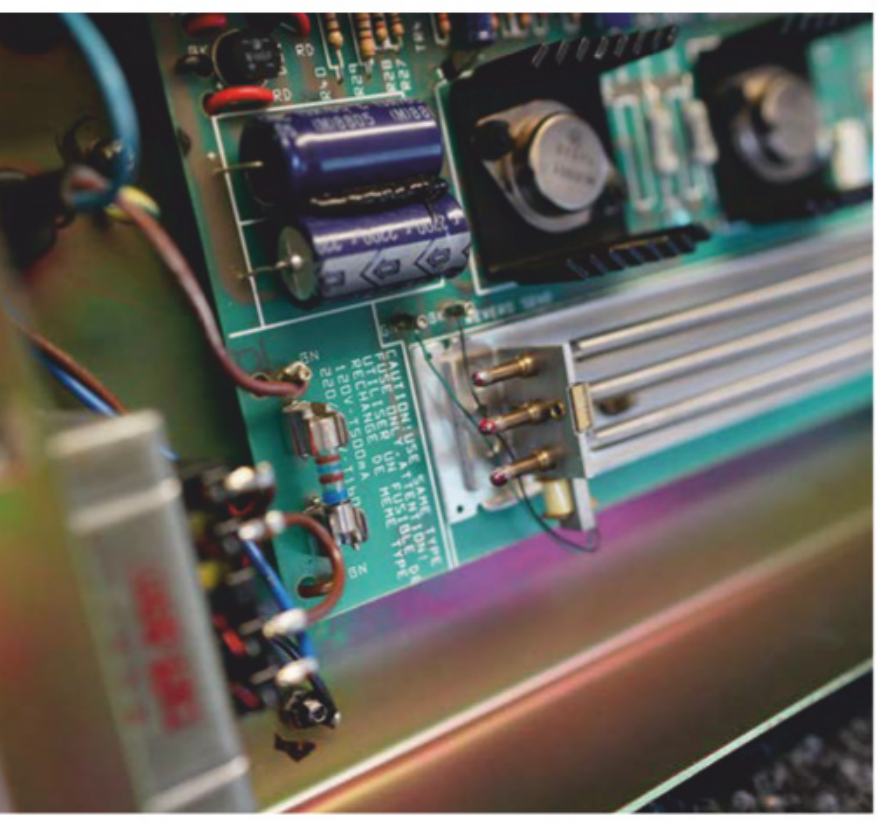
Introduced in the early 1980s, the brilliant Marshall Lead 12 1x10 combo model 5005 was the smallest of a new solid-state line-up that also included the 5002 Lead 20-watt 1x10 and the 5010 Master Lead 30-watt 1x12 combo. The Lead 12 was later available in head format too, model number 3005. It didn't have the JCM800 logo but it was included in the same catalogue, manufactured in the same period and sported the same look and style too.

The reason I love these amps is simple: they truly sound like valve amplifiers. I've not come across any other solid-state amplifier that has managed this the way the Lead 12 does. Clearly, I'm not the only one who realised this – ZZ Top's Billy Gibbons used one to magical effect on *My Head's In Mississippi*. The tone is that of a classic cranked Marshall without any hint of fizz, and that's no mean feat considering that the amp is loaded with a single 10-inch Celestion G10D-25 speaker.

In 1984, Marshall added spring reverb to the model and gave it the moniker Reverb 12, model 5205. This is the version that landed on my bench this week. Despite being almost four decades old, it's still going strong and only requires some TLC and preventative maintenance to keep it going. If you happened to read my column on amplifier servicing a few months back, you'll be familiar with the process.

The customer complained of a few scratchy pots, a few crackles, and some buzzing here and there. On the whole, however, the amp is functional. Removing the 0.8mm steel chassis from the cabinet is simple, as there are just two machine screws holding it in place.





Sliding it out if the cabinet reveals a well-designed and manufactured circuit board with all of the components top-side, with the traces located underneath.

The mains transformer sits off the board on the right-hand side of the chassis, along with the power switch and associated power wiring. It's hard to miss the three-spring reverb unit located on the circuit board, it's (comparatively) huge and runs almost the length of the thing. The potentiometers are sturdy Taiwanese-made 24mm units from Alpha and are easy to clean and, if required, replace. After the service is completed, it's time to button it all back up and give the amp a play test.

Plugging in a Les Paul, selecting the bridge pickup and turning the gain up to about three o'clock ushers in a classic 1980s rock tone that wanders ever so close to the sound you hear on Van Halen's eponymous debut album. Turn it up a little more, push the mids past eight and soon we're in Thin Lizzy territory. The master volume is fantastic, and it's not terribly difficult to eke out brilliant tones even at bedroom-friendly volumes – a vanishingly rare and increasingly prized amp trait these days.

Here's something I didn't know until now: the Reverb 12 is also a fantastic jazz amplifier. Turn the gain down to three, set the master to full, bass and mids on two, and the treble to whatever suits, and with my 1960 Epiphone Century, I can get anything from Wes Montgomery to Joe Pass. Turn the mids up a smidge further and I could Django all night at the Hot Club.

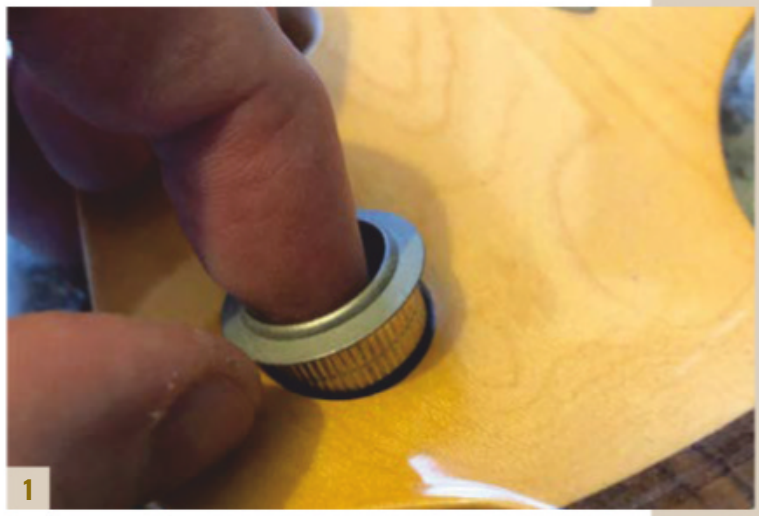
There we go then: the small amp that can do it all. I'm so enamoured with the Reverb 12's jazz tone that I've just purchased one for myself. For only £120 delivered, I'd be mad to say no.

Visit riftamps.com for more on Rift's range of British-built boutique amplifiers

ABOVE LEFT The spring reverb unit almost runs the length of the board

ABOVE RIGHT This Kalamazoo-made Epiphone Century is a surprisingly good match for the Reverb 12

TOP The output transistors are isolated in deep heat sinks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TECH TALK
HOW TO FIX LOOSE BUSHINGS

WORDS & PHOTOGRAPHY MICHAEL JAMES ADAMS

This month, Michael James Adams sticks his neck out and reveals an improvised solution to a frustrating tuner-bushing issue

In the interest of full disclosure, I must get something off my chest: I've had my friend and bandmate Roberto's Jazz Bass for far too long.

In August 2018, Roberto mentioned that his beloved 1991 American Vintage '62 Jazz Bass, was tough to play. I gave it a quick once-over during practice and it was immediately obvious to me the neck had too much relief.

Relief is how we measure the curvature of a neck in relation to the strings; too little and the strings will rattle against the frets, too much and the strings will be hard to press down in the middle of the fretboard. Bert's bass had *way* too much.

He dropped off the bass soon after. When I removed the neck, I saw the truss rod didn't have enough tension to dial out the bow.

At Roberto's behest, I spoke to a few luthier friends who have had success in using heat and corrective compression to retrain the wood into a more favourable position. All agreed that the problem was far too extreme for that treatment.

After a series of long discussions with Roberto about his prized bass, he expressed his desire to keep it as 'correct' as possible, so we decided to track down another AVRI '62 Jazz Bass neck – which, of course, was incredibly difficult. I won't bore you with the finer details but suffice it to say that we spent many months trying to find one at a fair price and, when we couldn't, Roberto bought an American Professional neck and sent it over instead. Its profile and untinted finish, however, just didn't work for him. Our search continued.

1 It's pretty clear that the bushings here are loose

2 Thin wood veneer, the kind use to line the forward-facing edge of shelves, can provide a helpful solution

3 If the veneer is backed with adhesive, you'll have to scrape it off before you begin – hot water helps

4 Soaking the veneer in steaming-hot water will make it more malleable

5 Trim the veneer to the correct length after you've softened it

6 By looping the veneer around your finger, you can make it assume the correct shape

7 & 8 Test-fitting the veneer

9 With the looped veneer in place, use a sharp blade to trim off any overhang

In January 2020, I was able to cash in a few favours with my dear friends at Fender to score a new replacement neck from the American Original range. The radius is slightly flatter (9.5 inches to the American Vintage's 7.25) and it has a round-lam board but at least we gained the look of 'clay' dots.

After using his backup bass for so long, it looked as if Roberto would soon have his number-one back. But another issue soon reared its ugly head, keeping the long-suffering lovers apart a while longer.

When manufacturers refresh a range or introduce new model, specifications can change somewhat unpredictably for the end user, with small parts that you'd rarely give a second thought to all of a sudden not fitting. With this neck, the issue came down to tuner bushings.

Bushings are those little surrounds that act as a barrier between the tuner shaft and the bare wood, which are meant to protect the wood from wear while keeping the shaft upright against the tension of the strings. An unsung hero of tuning stability, these demure doughnuts are simple yet crucial components.

Our new American Original neck had wider holes than Roberto's American Vintage's but that's no big deal – it's easy enough to order the right bushings online, which I did. I checked the specs, looked up the current part number and ordered the correct parts. They arrived – and they didn't fit either. Okay, fine. I double-checked, took some more measurements and ordered another set. These ones, this time, were going to match.

But they didn't. This was getting rather frustrating.

In the interim between ordering and receiving the new bushings, I'd heard about another common issue. It seemed that loose factory fittings had been a problem as of late. It looked like I might have to search for another solution.

By the time I found all of this out, the COVID-19 pandemic was in its earliest stages in the US, and we were all wondering how it would pan out. I knew that ordering parts would be tricky with the slowed shipping of non-essential items, plus I'd been burned twice already and wasn't eager to be singed again. At any other time, I'd have gone over to the workshop of one of my builder friends, plugged the holes and re-drilled, but that was no longer an option. What to do then?

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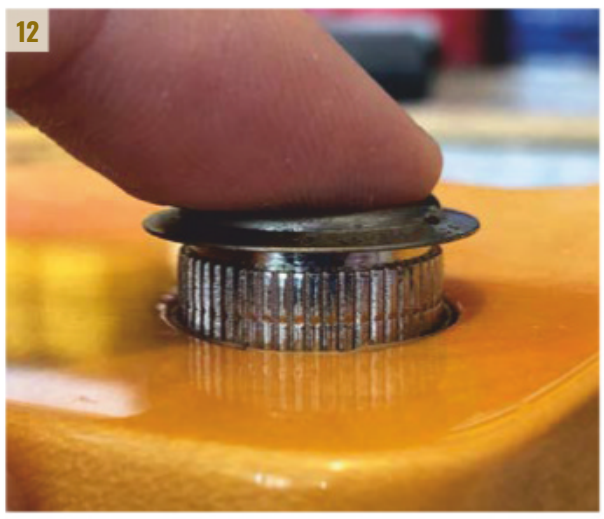
10 Sure enough, our bushings fit snugly

11 Using a hair dryer on the warm setting fixes the veneers in place

12 The moment of truth

13 Happily, we have a tight and rattle-free fit

14 Roberto's bass ready to return to duty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I hatched a plan. On the day we allowed ourselves to go out and gather supplies, I visited a hardware store in search of veneer, specifically the thin kind used to line the forward-facing edge of shelves. It can be found in many types of wood but the store only had adhesive-backed red oak.

This type of veneer comes in handy around guitar repair shops. I use it most often to shim the gaps around a neck in a slightly oversized pocket. I thought it might be of use here to line the bushing holes. With any luck, Roberto would have his bass back in no time.

The first step of this procedure was scraping off the adhesive backing of the veneer strips, a process made much easier with the use of hot water. I used a razor blade to scrape off the damp glue.

Next, I cut each strip to a length of 2.5 inches, slightly more material than I required to fill in the gap between the bushing and the headstock. I let my kettle heat up for the next step while I checked the necessary measurements.

Inspired by the way luthiers bend the sides of acoustic guitars, I decided to bend the veneer strips by placing them in a bowl of steaming-hot water, soaking them until I could bend them around my finger. It took some time for the wood to soften but soon it was malleable enough to shape.

I test-fitted each strip and trimmed to the appropriate length for full coverage, then inserted a bushing to check my work. Sure enough, each bushing fit snugly, so I used a hair dryer on a warm setting to dry the veneer in place.

I stuck each strip in place with Titebond II wood glue and reinserted the bushings. After installing the tuners and slapping on a set of La Bella flats, it brought me great pleasure to see that they were set firmly in place and functioned perfectly. Job done.

Only time will tell if this was a permanent solution. Frankly, I don't expect it was. I'd sooner fill and drill or spend more time and effort finding bushings that actually fit than resort to kettle-and-veneer tactics. But poor Roberto's been missing this bass, and this works well enough that he won't have to wait any longer. I call this a win.

Now to wipe it down with disinfectant and hand it back. It's an amazing bass and belongs to an equally amazing friend.

For more, follow Mike on Instagram @puisheen

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ESSENTIAL BLUES LESSONS

PLAY BLUES LIKE **STEVIE RAY VAUGHAN**

WORDS LEIGH FUGE

The Texan bluesman's style is as influential as it was unique. Here's how to incorporate some SRV magic into your playing

The influence of Stevie Ray Vaughan on modern blues playing is almost impossible to overstate. Although his mainstream career only spanned seven short years before he died tragically in 1990, the Texas native's incendiary approach to guitar changed the instrument forever.

SRV would become so influential that, in the decades since his passing, his choice of guitars, effects, amps and even string gauge have passed into guitar folklore and are now considered holy grails of tone. As with all superlative players, though, the real magic was in his brain and his fingers.

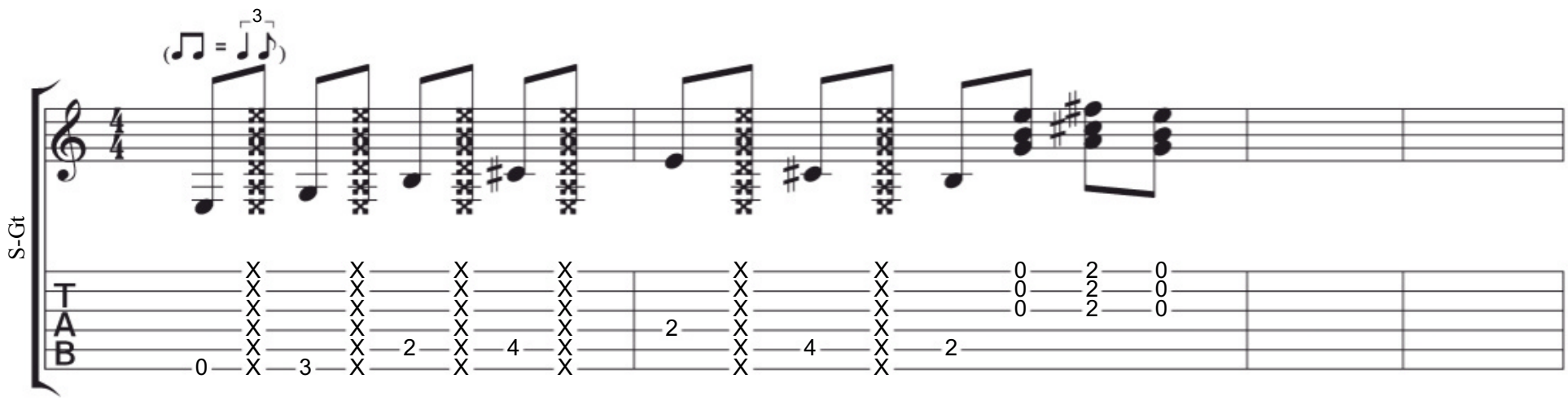
This lesson's blues-style licks should be played with a triplet feel, which means you should interpret them as triplets even if they aren't. For parts that have a triplet feel, count them as 1 a 2 a 3 a 4 a. When licks are shown as triplets, play them as such.

Now pick up that Strat, slap on a set of 0.013s, plug in a Tube Screamer and head down to Austin to kick up a Texas Flood.

Leigh Fuge is a guitar teacher, touring musician, and session guitarist from Swansea, in the UK. He has taught hundreds of students face to face and via the MGR Music platform. To find a guitar tutor in your area visit mgrmusic.com and follow Leigh on Instagram @leighfugeguitar

LICK 1

Here's a rhythmic shuffle typical of SRV's technique, and meant to be played with a triplet feel. Break the rhythm into two parts and you'll have the fretted note on the beat and the muted note on the 'a' before the next. Stevie would apply this muted hit to a lot of his riffs to lend them a percussive feel. Play the fretted note on the downbeat and the muted note on an upbeat. Don't worry about muting the strings flawlessly, it's more of an attitude thing here. Dig in as you play.



LICK 2

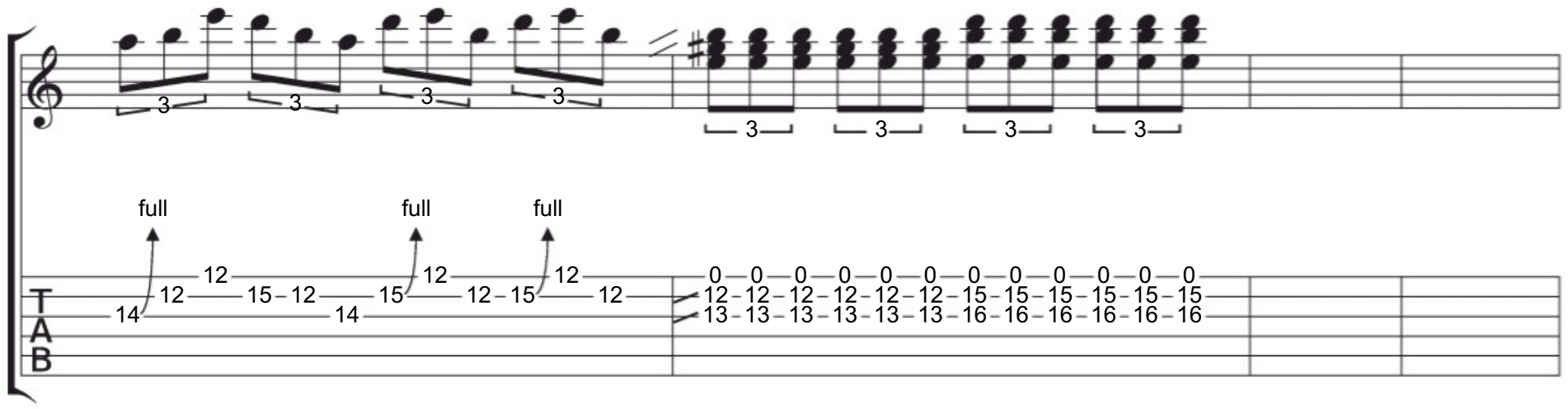
This would make a terrific Texas blues-style opener. Stick to the 1 a 2 a 3 a 4 a triplet-style count across the first three bars. The slide from the 3rd to the 5th fret begins on the first beat and lands on the 5th fret, which you should re-pick, on the 'a' just after it.

LICK 3

Straight triplets were another trademark of SRV's shuffle-heavy blues. This lick makes use of triplets for a speedy feel over a shuffling rhythm. At the start of the second bar, beat 1 is split into a 16th-note triplet and a single eighth note (the 3rd fret on the low E). This covers the same length of time as the eighth-note triplets throughout the rest of the lick.

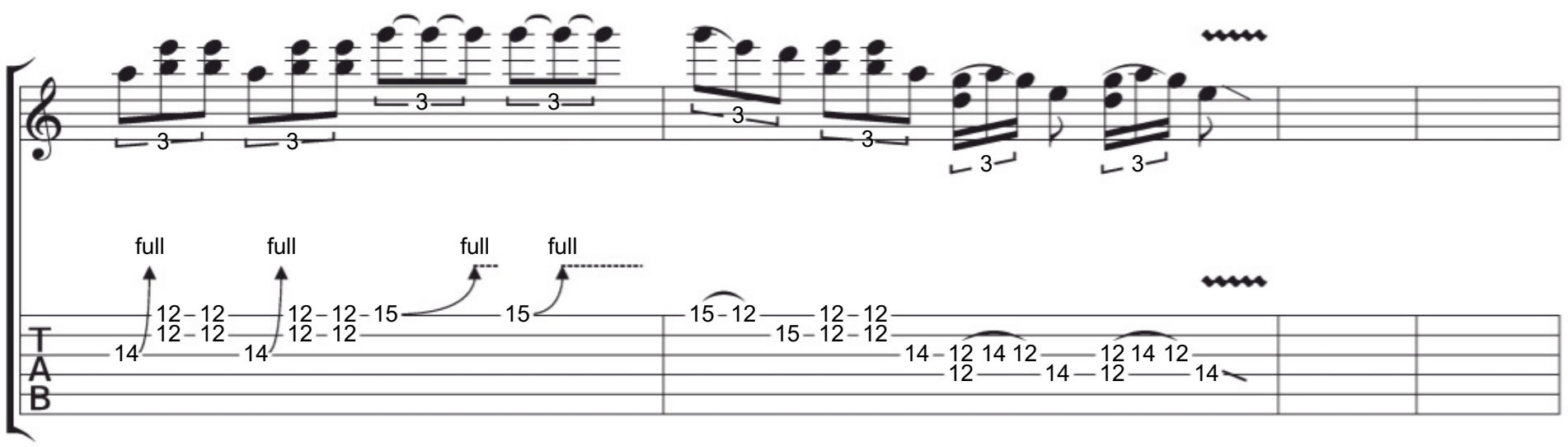
LICK 4

Alongside the bend-laden pentatonic licks seen in bar 1, SRV also appended chordal playing to his lead work. The chord that lands over the first two beats of bar 2 is essentially an E major triad – the open E string, with the B note on the 12th fret of the B and the G# on the 13th of the G string. The second chord is an E7 (E, B, D, G#) without the G# note (the major 3rd). We could call this chord an E7no3.



LICK 5

The final example is a fiery pentatonic blues lick that features multiple doublestops and some string bends. Look out for the descending run in bar 2, which features flurries on beats 3 and 4. These are played as 16th-note triplets followed by a single eighth note. Play the doublestop on the 12th fret of the D and G strings and do the hammer-on and pull-off on the G string with your third finger.



TRY IT YOURSELF

These licks are marvellous ways to channel SRV's electrifying brand of Texas blues. Don't be afraid to showcase some attitude. Check out some live videos of Stevie's playing and you'll see that he was never gentle with his instrument. Dig in and have fun!

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CHORD CLINIC

HOW TO PLAY CHORDS LIKE BOB DYLAN PART2

WORDS ROD FOGG

In the second part of our examination of Bob Dylan's use of chords, we dive into what happened when he went electric, and the interesting twists it added to his standard repertoire

As we learnt in part one, Bob Dylan's unique take on chords has long been one of the most recognisable facets of his unparalleled back catalogue.

In 1965, Dylan was looking for a backing group for his first 'electric' tour of the USA. His search led him to the Canadian-American roots outfit that became known as The Band.

The subsequent amphetamine-fuelled dates are legendary for the hostile responses they provoked from folk purists, typified by the infamous "Judas" moment at the Manchester Free Trade Hall in May 1966. But when Dylan wasn't getting heckled, his chordal progressions mutated into new but no less compelling forms.

FIGURE 1

This distinctive eight-bar sequence begins with both a high pedal note and a chromatic bassline, where the top string's G pedal note is present in the first three chords, and the bassline moves fret by fret. You could experiment with F/A and Fm/Ab and allow the chromatic line to run all the way down to C/G, though it's arguably more Dylan-esque to go for the solid F chord. Pay attention to the Xs on the low E string. The string can usually be muted by whichever finger is on the A string.

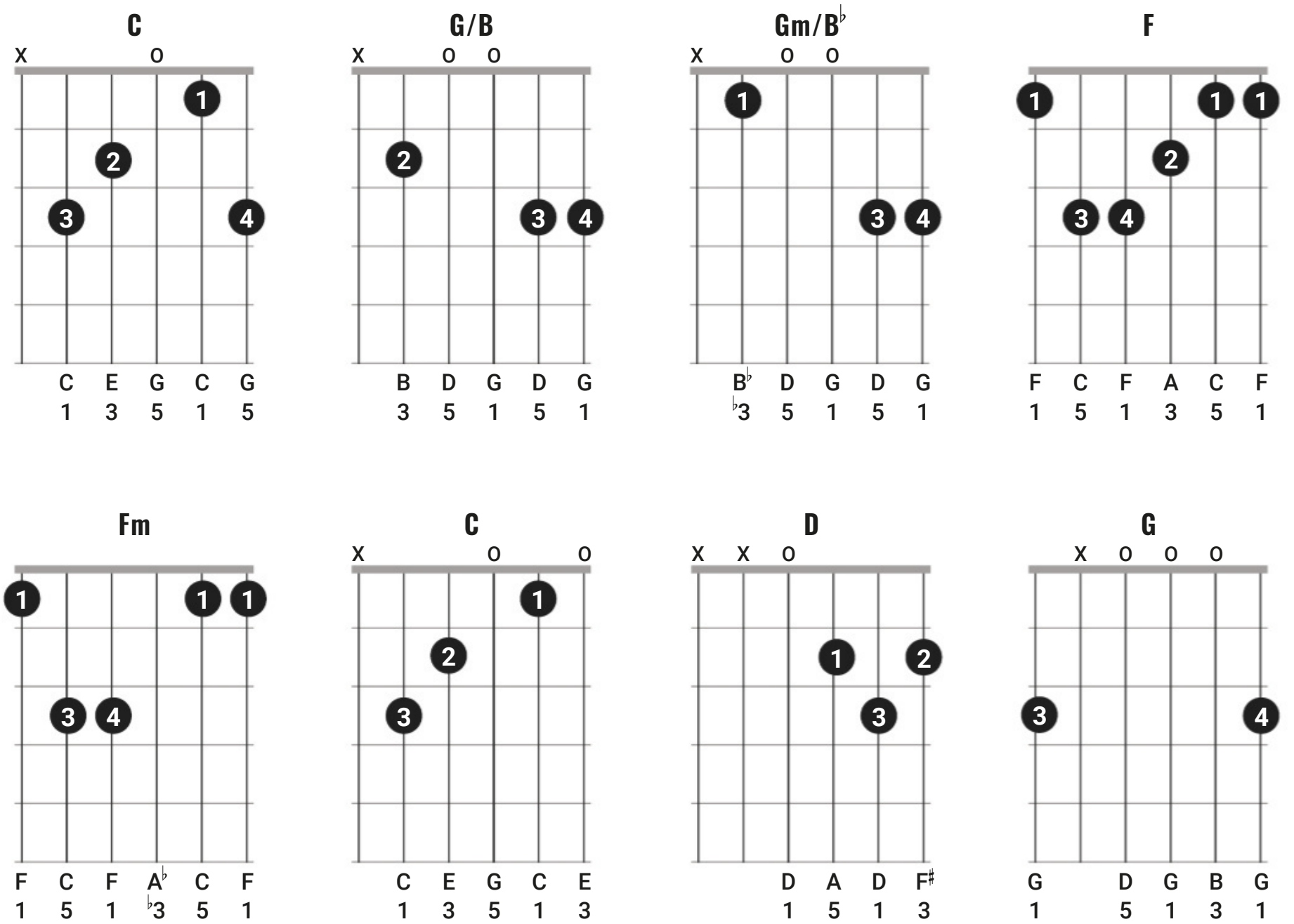


FIGURE 2

We can see this sequence working as a middle eight and, as is often the case, it starts on chord IV, which we've taken up at the 8th fret to give the music a boost. The E7 chord comes as quite a surprise and only occupies half a bar, followed swiftly by the F chord and a bar of C major. Experiment with the C barre chord from this example or either of the options from figure 1 and decide which works best for you.

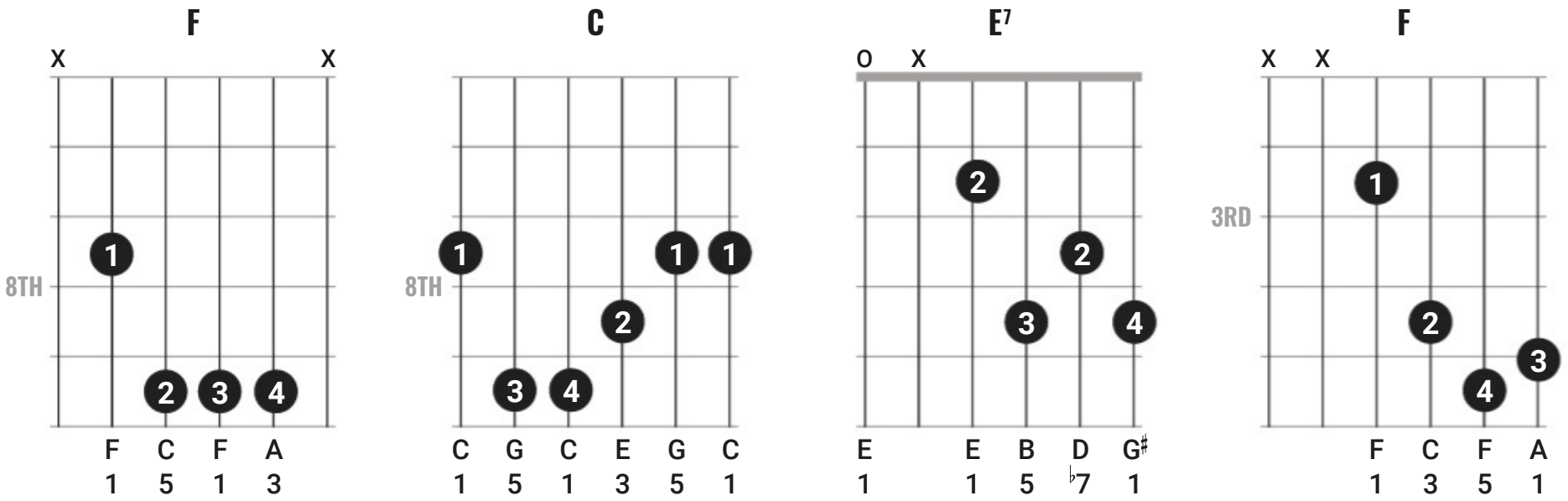


FIGURE 3

These two chords follow the first two chords from figure 2 to make the last four bars of our middle eight. We've chosen to play these as barre chords but, if your hand is hurting, you can swap in their open-string equivalents. Remember, the best way to hold down barre chords is to squeeze with your thumb and not to pull from your elbow. We like these fat voicings and the way the seventh is voiced low in the chord. Try them out and you might find that they progress smoothly from one to the other.

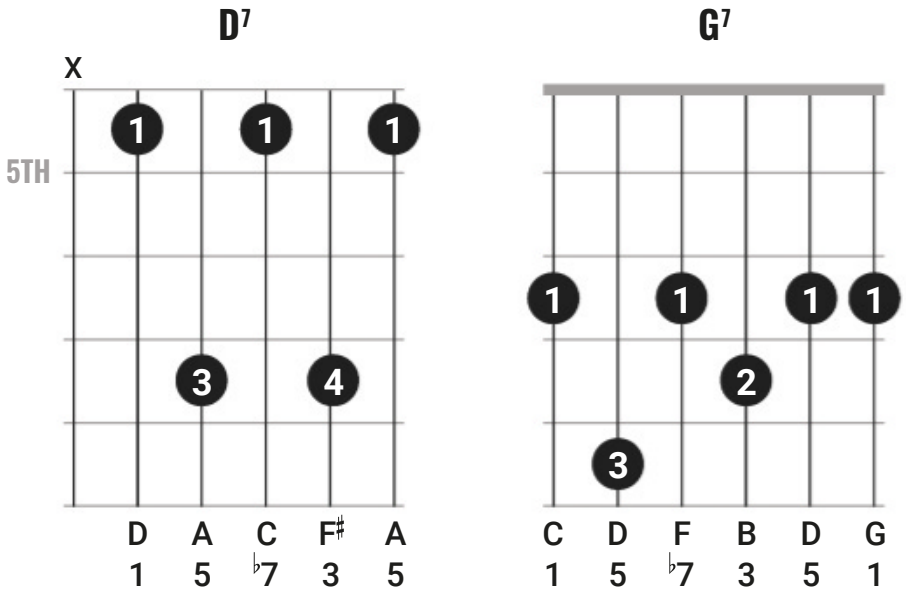
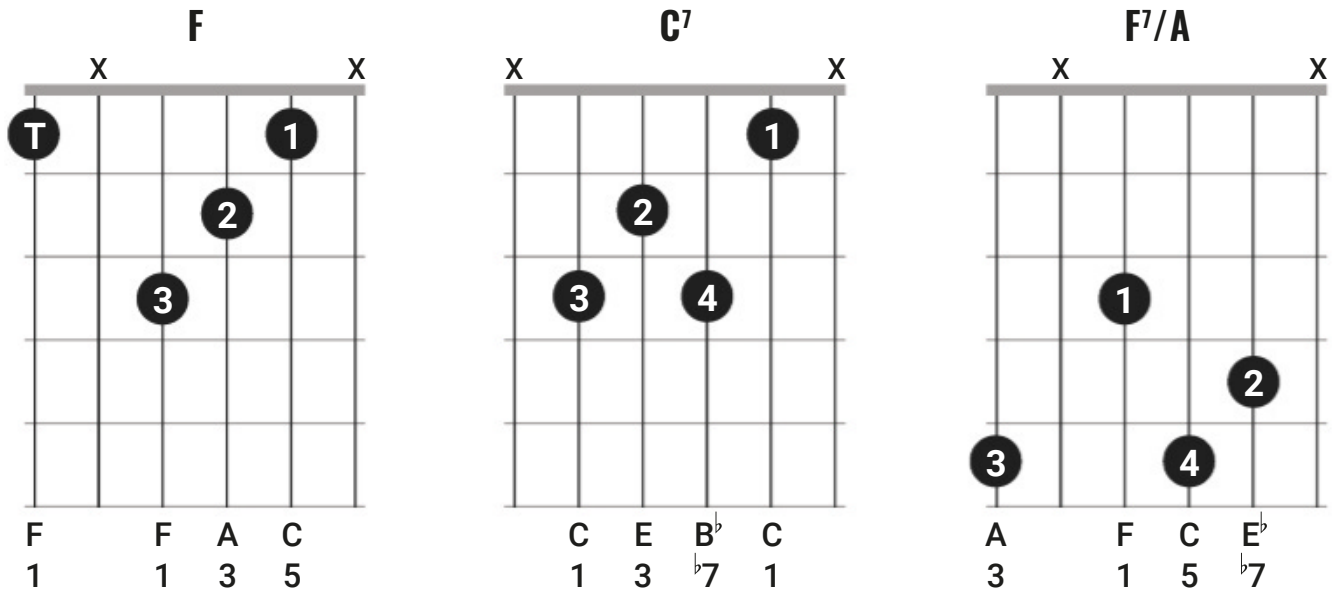


FIGURE 4

This roots-led sequence reflects Dylan's flirtations with the genre while he was with The Band, and is best played with a lively tempo inspired by the zydeco music of Louisiana. We've chosen to use the more economical thumb-over version of F major here, and create a verse made up entirely of F and C7 chords. The chorus or tagline at the end of the verse consists of F major, followed by the last three chords, which can be repeated before heading back to the top of the verse. The F7/A adds a cool bassline to the progression. But try playing a root position F7 instead to hear the subtle difference this chord makes.



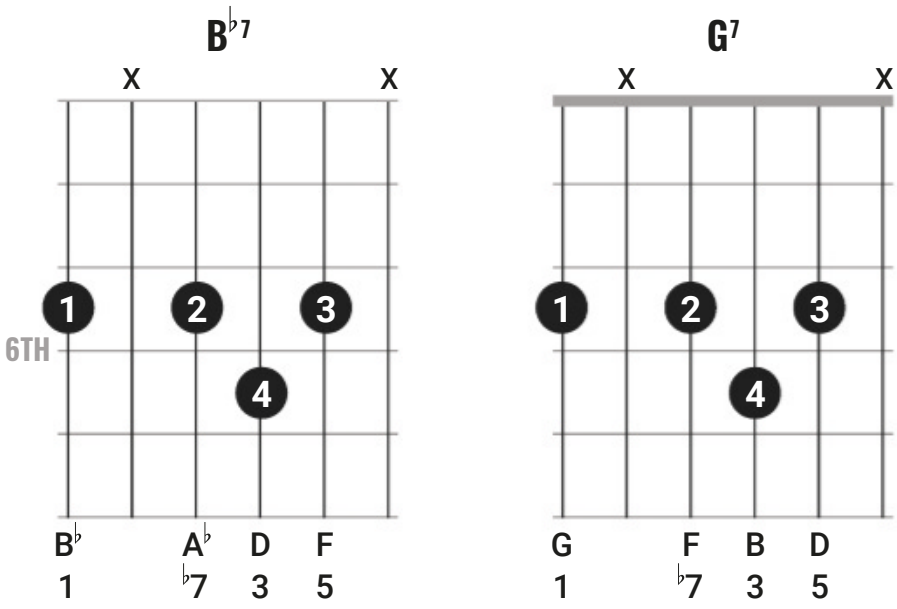
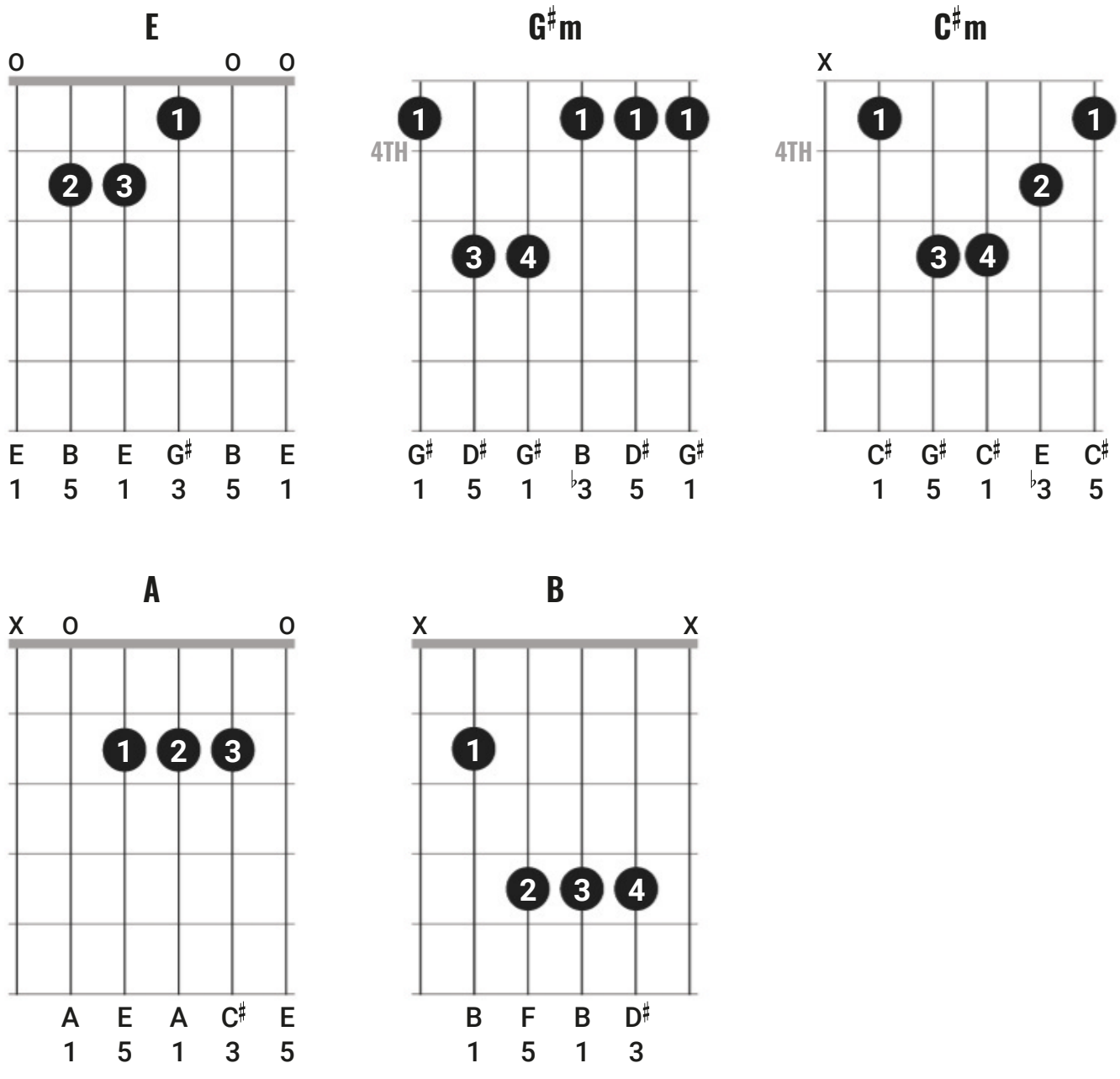


FIGURE 5

Introduce a more sombre mood by playing these chords with a slow tempo. Begin with the first four chords and then follow them with a bar of E, B, and two bars of C#m, making eight in total. It's tempting to head back to B for the final bar but instead it's deliberately been left open and unresolved, adding to the restless nature of the sequence. Try hammering on with your third and fourth fingers after you've put the barre down on the G#m chord. This should work on C#m too, with the second, third and fourth fingers. You could also try pulling off onto the open string with the third finger in the A major chord, leading back to the E chord. Have fun with these ideas and see what you can come up with.



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TALKBOX

RHETT SHULL

INTERVIEW SAM ROBERTS

YouTube sensation Rhett Shull has one of the fastest-growing guitar channels around, with more than 22 million views to date. Here, the session maestro talks pedalboard disasters, avoiding noodling and more

The moment it all started...

"Christmas morning. I was 13 and got my first electric guitar from my parents. It was a cheap $99 Squier starter pack that came with an amp. I haven't stopped playing since."

I couldn't live without my...

"I had to move heaven and earth to buy my Novo Serus J about three years ago but it's the best purchase I've ever made."

The one that got away...

"I've always tried to be diligent when it comes to selling gear, only selling something after I've made a big step forward onto that next piece of equipment. But I once sold a pair of 1176 compressors. I wish I still had them but you live and learn."

My signature model...

"You might see something soon…"

The first thing I play when I pick up a guitar...

"It's usually chords. Lately, I've been trying to avoid noodling and instead focus on playing complete musical ideas. I've been inspired by Tom Bukovac's YouTube videos and he's a master of this – everything he plays is a complete musical idea, he never noodles."

The best advice I've ever been given...

"Set massive goals and, when working towards them, don't focus on the end and how far away it seems but instead on each individual step towards that goal. Before you know it, you'll be there."

My Spinal Tap moment...

"One of the most embarrassing moments that I've ever had on stage happened a few years ago when I was on tour with Muddy Magnolias. We had just kicked off our set and we were right in the middle of a song when I started losing my guitar signal to a faulty cable somewhere on my pedalboard. I bent down to try and find the bad patch cable but I couldn't, and then I started to panic. I was ripping pedals and cables off my pedalboard, desperately trying to find the issue. This went on for two entire songs and, being the only guitar in the band, they kept playing with just bass, drums and vocals. At one point, I looked up to see a packed club of people all staring directly at me, as well as the rest of the band. They were all like, 'What the fuck are you doing?' It finally dawned on me that I could just plug straight into my amp and finish the set. It was a nightmare."

My guilty pleasure...

"Being the loudest person on stage."

I'm in the band...

"Tom Petty & The Heartbreakers would be the gig to end all gigs for me. If I was able to play in that band with Mike Campbell, I don't know where I could go from there."

I wish I was there...

"Wes Montgomery playing with the Wynton Kelly Trio where they recorded the *Smokin' At The Half Note* album in 1965. Wes is probably my favourite jazz guitarist and in '65 he was at his peak. Getting to see him in a smoky club in the mid-1960s would be one of the coolest experiences ever."

If I could just play one thing...

"I wish I could play jazz but I think I found it too late in life to really internalise the style, so instead I stay on the sidelines and watch. All of my friends who are great jazz players seem to share this bond that I don't have, plus they always look like they're having so much fun."

Rhett Shull's new Tone Course is available now – visit flatfiv.co for more information

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